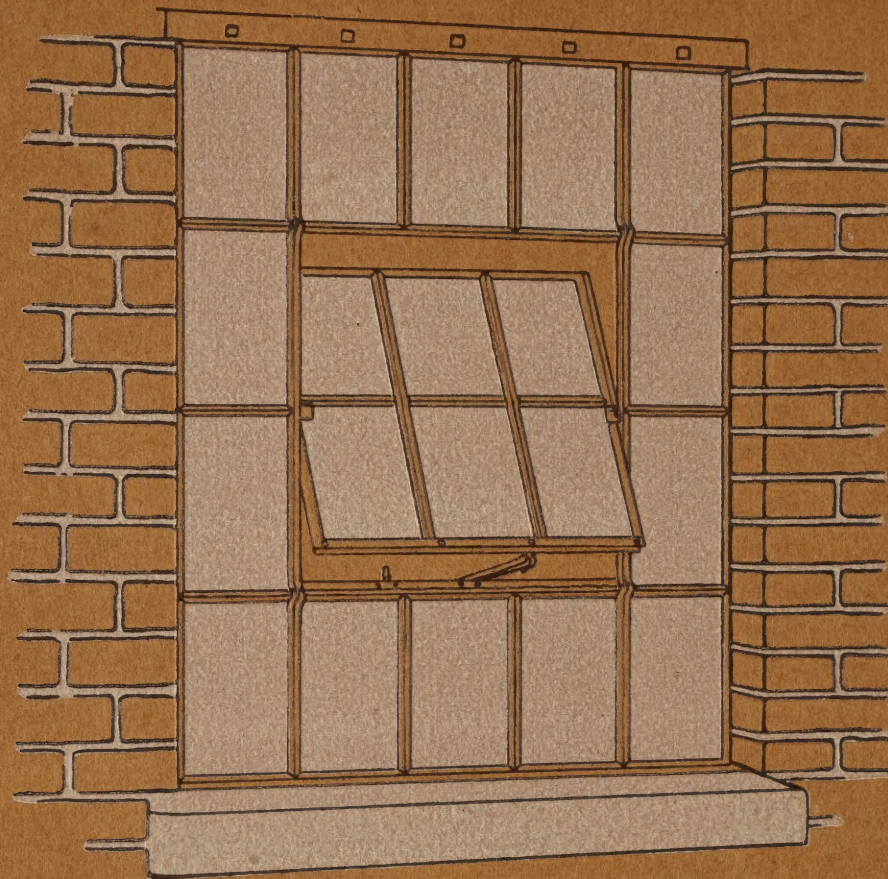


PAMPHLET Y

Detroit Fenestra Window Sash

WROUGHT
STEEL



STANDARD
SIZES

PATENTED

DETROIT STEEL PRODUCTS CO.
DETROIT, U. S. A.

DETROIT STEEL PRODUCTS COMPANY

Structural Steel Sash

For use in Warehouses, Factories, Mills, Foundries, Car Shops, Power Stations,
Garages, Institutions, and all Industrial Buildings

Also specially adapted for interior partitions and elevator enclosures

NEW YORK OFFICE—R. H. KINNEAR, Manager, No. 2 Rector Street

LIST OF AGENTS

ATLANTA—

Dowman-Dozier Mfg. Co.

BOSTON—

Smith & Thayer Co.

BIRMINGHAM, ALA.—

Southeastern Engineering Co.

BUFFALO—

Jas. P. Hunt, 14 Builders Exchange

CHICAGO—

Charles R. Ayars, 171 Washington St.

CINCINNATI—

Walter Kamman

DAYTON, O.—

F. G. Kemper, Riebold Bldg.

ST. LOUIS—

Hunkins Willis Lime and Cement Co.

GRAND RAPIDS—

Frederick H. McDonald,
619 The Gilbert

HOUSTON—

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Jacques Steel Co., R. A. Long Bldg.

LOS ANGELES—

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American Sheet Metal Works

PHILADELPHIA—

Samuel Bettel, Jr., Land Title Bldg.

PITTSBURG—

R. A. Rowland & Co.

PORTLAND, ORE.—

A. J. Capron, Ainsworth Bldg.

SALT LAKE CITY—

Thos. A. Williams, 209 Scott Bldg.

SAN FRANCISCO—

J. E. Dwan & Co., 151 Tehama St.

SPOKANE—

Tousley & Weare

WASHINGTON, D. C.—

Robert S. Bishop, The Evans Bldg.



The Strength of "**Fenestra**" Illustrated

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IN introducing our Wrought-Steel **Detroit-Fenestra** Sash (patented), in standard sizes, we believe that we are taking a step in the manufacture of metal sash for which the market is prepared. The Architect and Builder will readily appreciate the advantages derived from the use of a standard sash from the standpoint of delivery and erection, while from the manufacturing standpoint it may be said that the adoption of the standard so materially reduces the cost of the sash as to make metal sash nearly as inexpensive as the ordinary wood sash, under equal conditions.

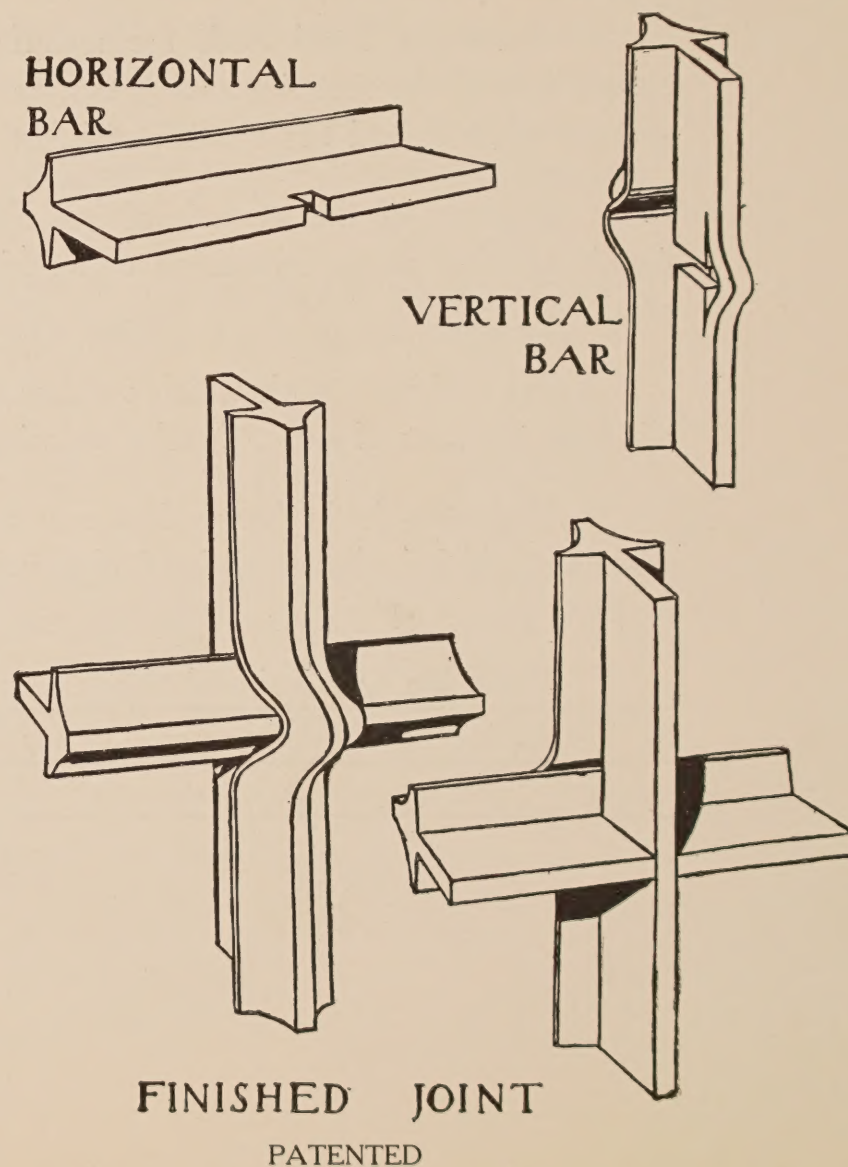
Through this booklet we desire to place in the hands of those who may be interested, all information necessary for preliminary planning and estimating, and we request that it be filed for future reference, believing that it will be useful whenever our product comes under consideration.

"Fenestra"

Like other great inventions, the process is perfectly simple, the only wonder is that it has never been thought of before. On this page are a few illustrations which will suffice to show you how the **Fenestra** joint is made.

A small cross slot is made in the vertical bar (only sufficiently large to allow the flange of the horizontal bar to pass through), the moulded portion is then pressed out so as to fold closely round the moulded portion of the horizontal bar.

All that happens to the horizontal bar is that a small notch is made in it to act as a lock. From this it will readily be seen that the amount of metal removed in making a **Fenestra** joint is comparatively infinitesimal. This allows a far lighter section to be used than is possible with the mitre joint or any other joint, thus making a great saving in the weight of the material used and consequently in the ultimate cost of the sash.



Facts About "**Fenestra**"

Fenestra Steel Sash are manufactured from specially rolled, solid sections, and the composition of the material is such that we are able to furnish a sash which has at once the strength of steel and the weather resisting qualities of iron.

Because of the strength of our **Fenestra** joint, it is possible for us to use sections which permit of 25% more light being delivered through a given opening than has heretofore been possible.

By making a sash which requires no frame, sash weights, etc., or heavy mullions, we eliminate the cost of same, thereby reducing the cost of each sash to a minimum.

Fenestra looks better than any other sash. A natural curve at each joint breaks the monotony which is characteristic of other sash, and gives **Fenestra** an appearance which is quite its own.

Fenestra was designed to supply a demand for a metal *factory sash*. It is not intended for installation in office buildings, but for its special purposes, it has no equal: as combining simplicity and neatness, with strength and weather and fire resisting qualities.

The Design of "**Fenestra**"

The cost of **Fenestra** is governed by the quantity of material involved, the size and uniformity of the openings into which the sash are to be installed and the amount of ventilation required in each sash unit. We aim, therefore, to obtain information regarding prospective work at a time when it is not too late for us to advise with our customers concerning details of building construction. In this way we are able to give you the benefit of our experience, and, at the same time, make our proposition attractive by offering at their full value and least cost, the advantages which our construction affords.

This pamphlet will serve to give you some idea of what **Fenestra** is; for detailed information we refer you to our estimating department, which is organized especially for consultation with our customers.

Sections

It must be understood that but two sections are used in the construction of types "A", "B" and "C" **Fenestra "Standards"**, viz. the double flange section, number 92, which forms the outside members of the sash, and the inside sash section, number 90, which is used only for making the inner bars (both vertical and horizontal). See page 6. Other outside sections are used in special cases and for special sash, but the one shown may be applied in such a variety of ways that it can be used for ordinary sash almost without exception. Type "M" standards have No. 94 section top and bottom (see detail).

Fenestra "Standards"

We would call your attention to the fact that the use of standards in **Fenestra** neither restricts the size of the window nor the percentage of ventilation which may be obtained from a given opening.

Size:

By selecting a sash of the required height, the width may be varied by using multiples of this sash unit.

Ventilation:

Ventilation may be arranged to suit practically any requirement by the use of the desired single unit or a combination of unventilated sash with those which are provided with ventilators. All units of the same height are interchangeable.

Glass:

Standards in **Fenestra** are designed to take 10" x 16" and 12" x 18" standard size glass, Type "A" Sash, 10" x 16" and Types "B," "C" and "M" Sash 12" x 18" glass.

Measurements:

As before mentioned, **Fenestra "Standards"** are designed to take 10" x 16" or 12" x 18" glass. In order that these sizes may be fitted without trimming, the sash is laid out as shown by the accompanying cut, which illustrates the spacing of horizontal bars in Sash A12. The following formula may be used in calculating the dimensions of standard sash, and, in fact, any sash the outside members of which are formed from Section No. 92, by substituting measurements as indicated:

$$N \times (\text{Glass dimension (height or width)} + \frac{3}{8}") + \frac{7}{16}"$$

= over-all dimension of sash.

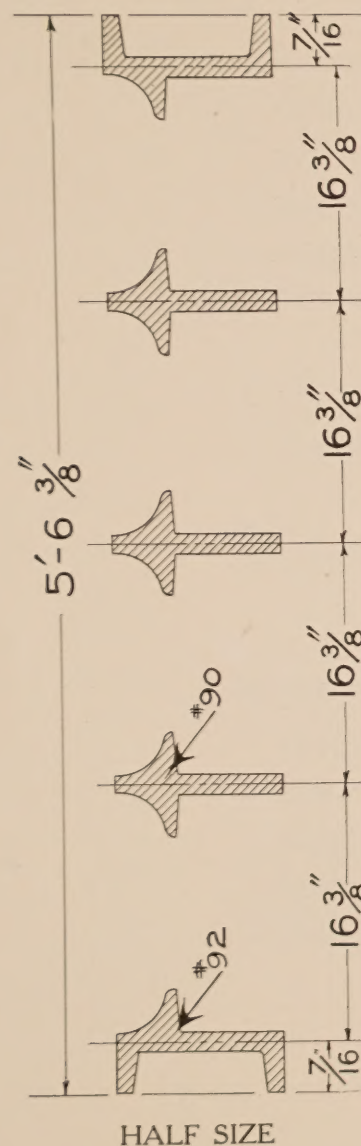
N = number of divisions in height or width of sash.

Fixing:

On page 17 we illustrate the method which is almost universally used for the erection of **Fenestra** in brick work openings. In the case of concrete, the same sections are used, but the methods for installation in concrete are so varied that we advise consultation direct with us when questions arise on this point, but suggest detail on page 24.

We supply the sash complete with glazing pins, and hook bolts at head and flat bar lugs if required.


We do not however supply any collateral construction such as angles or other steel work to carry walls above sash.



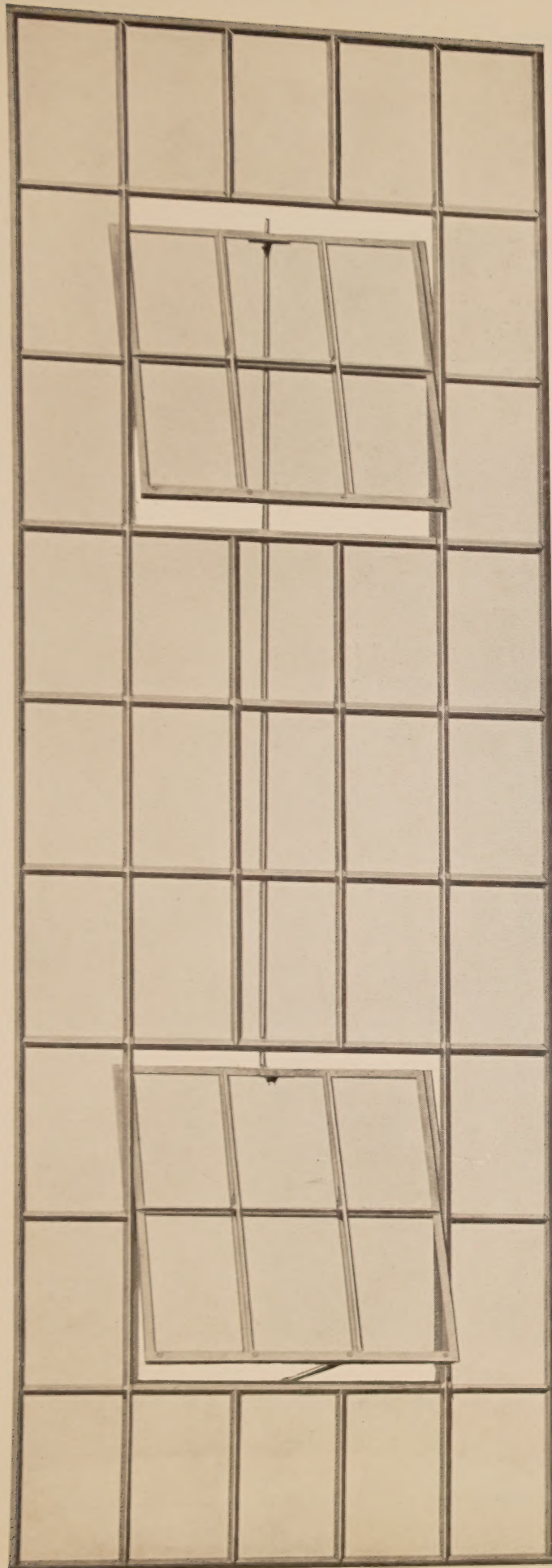
Standard Assembly, Four Units, Type A-1

NOTE

Glass in Ventilators Must
be Trimmed

 Cut $\frac{3}{4}$ in. from Side of Glass which Borders
on Outside of Ventilator.





Unit of Standard Sash

TYPE A-1 (10" x 16" Glass)

TYPE B-1 (12" x 18" Glass)

Specifications: In 45 panes: 2 parts of 6 panes each to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Veitilation: 25% of total window area.

Over-all Dimensions of one or more Units

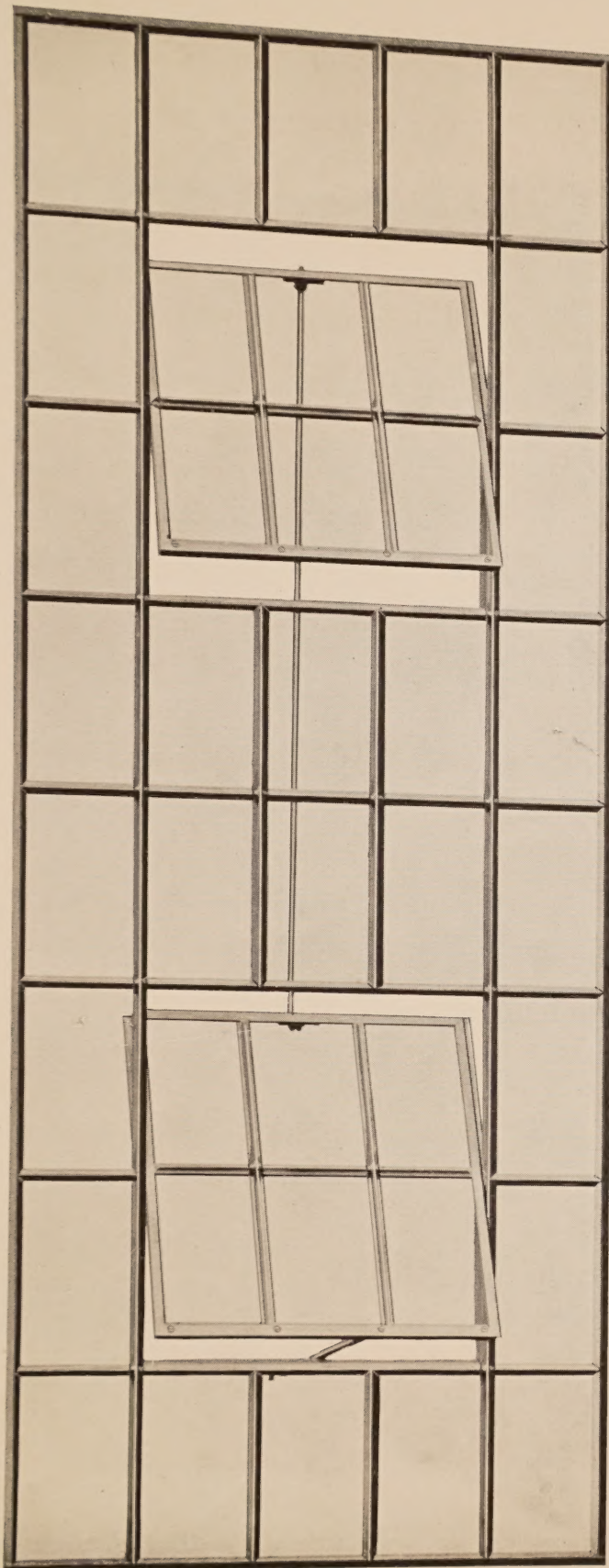
TYPE A-1

TYPE B - 1

Designed for 10" x 16" Glass

Designed for 12" x 18" Glass

No. of Units	Width	Height	No. of Units	Width	Height
1	4' 4 ³ / ₄ "	12' 4 ¹ / ₄ "	1	5' 2 ³ / ₄ "	13' 10 ¹ / ₄ "
2	8' 9 ¹ / ₈ "	12' 4 ¹ / ₄ "	2	10' 5 ¹ / ₈ "	13' 10 ¹ / ₄ "
3	13' 2 ⁵ / ₈ "	12' 4 ¹ / ₄ "	3	15' 8 ⁵ / ₈ "	13' 10 ¹ / ₄ "
4	17' 7 ⁹ / ₁₆ "	12' 4 ¹ / ₄ "	4	20' 11 ⁹ / ₁₆ "	13' 10 ¹ / ₄ "



Unit of Standard Sash

TYPE A-2 (10" x 16" Glass)

TYPE B-2 (12" x 18" Glass)

Specifications: In 40 panes: 2 parts of 6 panes each to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Ventilation: 30% of total window area.

Over-all Dimensions of one or more Units

TYPE A-2

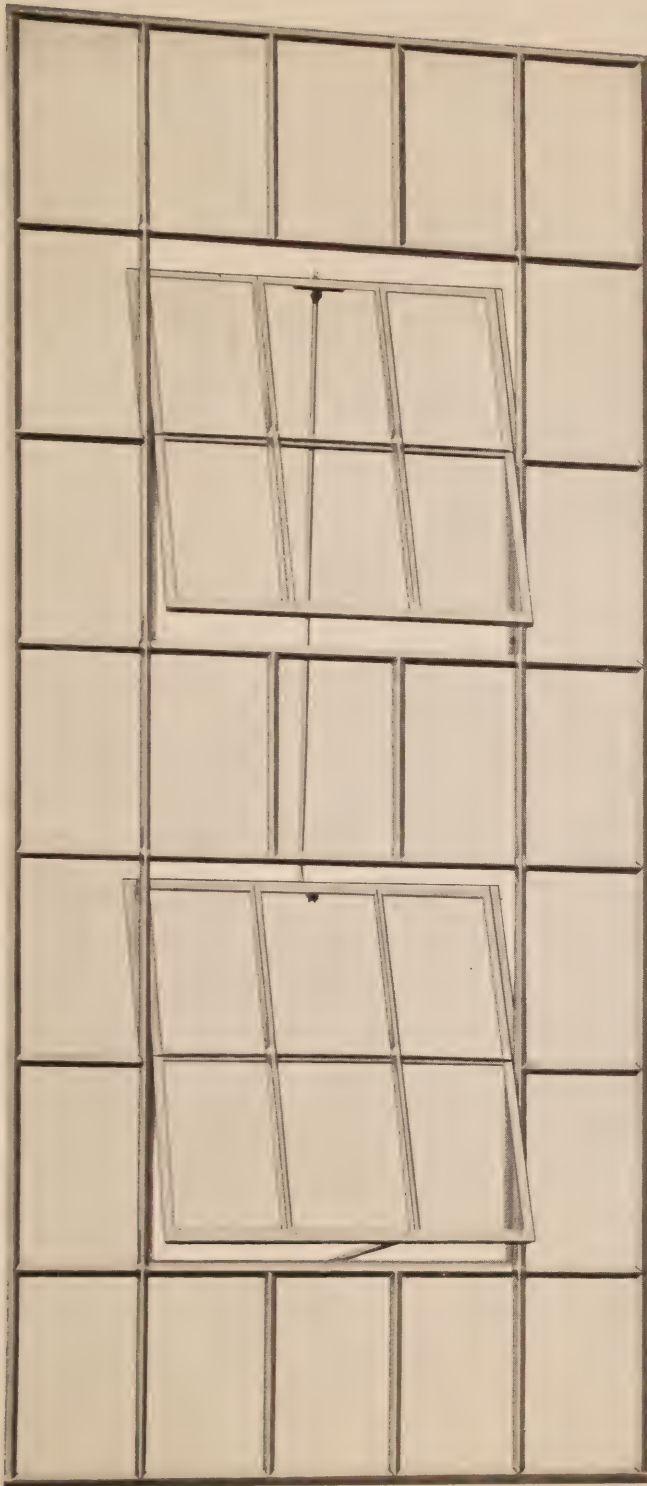
Designed for 10" x 16" Glass

No. of Units	Width	Height
1	4' 4 $\frac{3}{4}$ "	10' 11 $\frac{7}{8}$ "
2	8' 9 $\frac{11}{16}$ "	10' 11 $\frac{7}{8}$ "
2	13' 2 $\frac{5}{8}$ "	10' 11 $\frac{7}{8}$ "
4	17' 7 $\frac{9}{16}$ "	10' 11 $\frac{7}{8}$ "

TYPE B-2

Designed by 12" x 18" Glass

No. of Units	Width	Height
1	5' 2 $\frac{3}{4}$ "	12' 3 $\frac{7}{8}$ "
2	10' 5 $\frac{11}{16}$ "	12' 3 $\frac{7}{8}$ "
3	15' 8 $\frac{5}{8}$ "	12' 3 $\frac{7}{8}$ "
4	20' 11 $\frac{9}{16}$ "	12' 3 $\frac{7}{8}$ "



Unit of Standard Sash

TYPE A-3 (10" x 16" Glass)

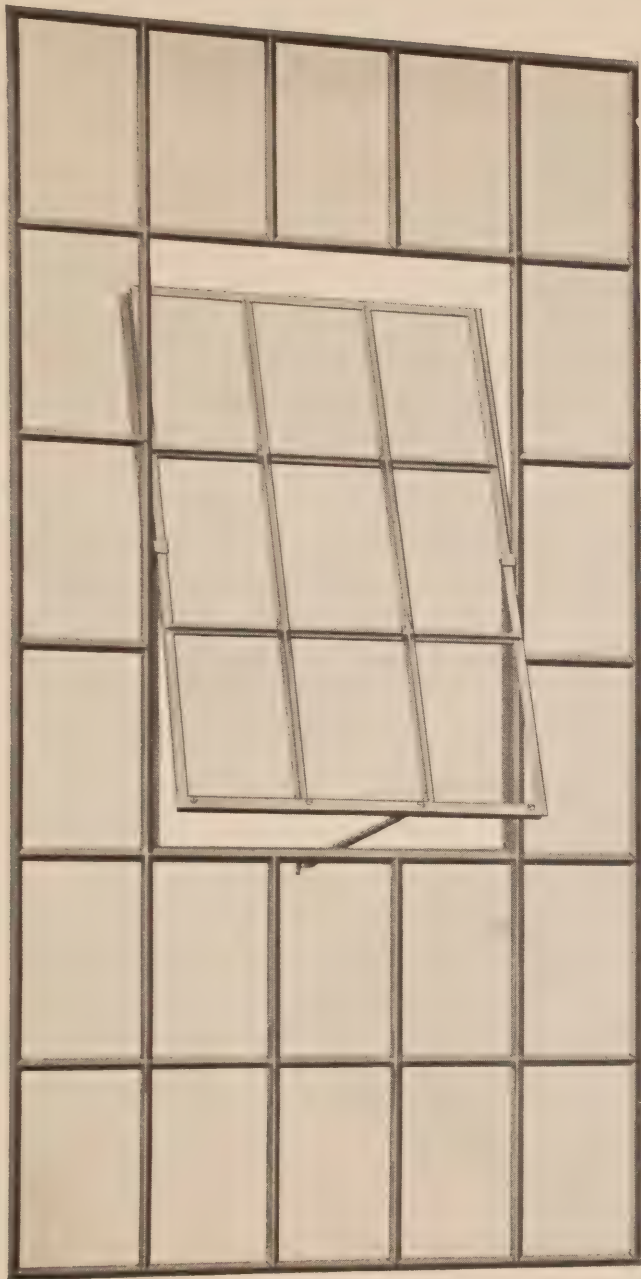
TYPE B-3 (12" x 18" Glass)

Specifications: In 35 panes: two parts of 6 panes each to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Ventilation: 33% of total window area.

Over-all Dimensions of one or more Units

TYPE A-3			TYPE B-3		
Designed for 10" x 16" Glass			Designed for 12" x 18" Glass		
No. of Units	Width	Height	No. of Units	Width	Height
1	4' 4 ³ / ₄ "	9' 7 ¹ / ₂ "	1	5' 2 ³ / ₄ "	10' 9 ¹ / ₂ "
2	8' 9 ¹ / ₈ "	9' 7 ¹ / ₂ "	2	10' 5 ¹ / ₈ "	10' 9 ¹ / ₂ "
3	13' 2 ⁵ / ₈ "	9' 7 ¹ / ₂ "	3	15' 8 ⁵ / ₈ "	10' 9 ¹ / ₂ "
4	17' 7 ⁹ / ₈ "	9' 7 ¹ / ₂ "	4	20' 11 ⁹ / ₈ "	10' 9 ¹ / ₂ "



Unit of Standard Sash

TYPE A-4 (10" x 16" Glass)

TYPE B-4 (12" x 18" Glass)

Specifications: In 30 panes: one part of 9 panes to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Ventilation: 30% of total window area.

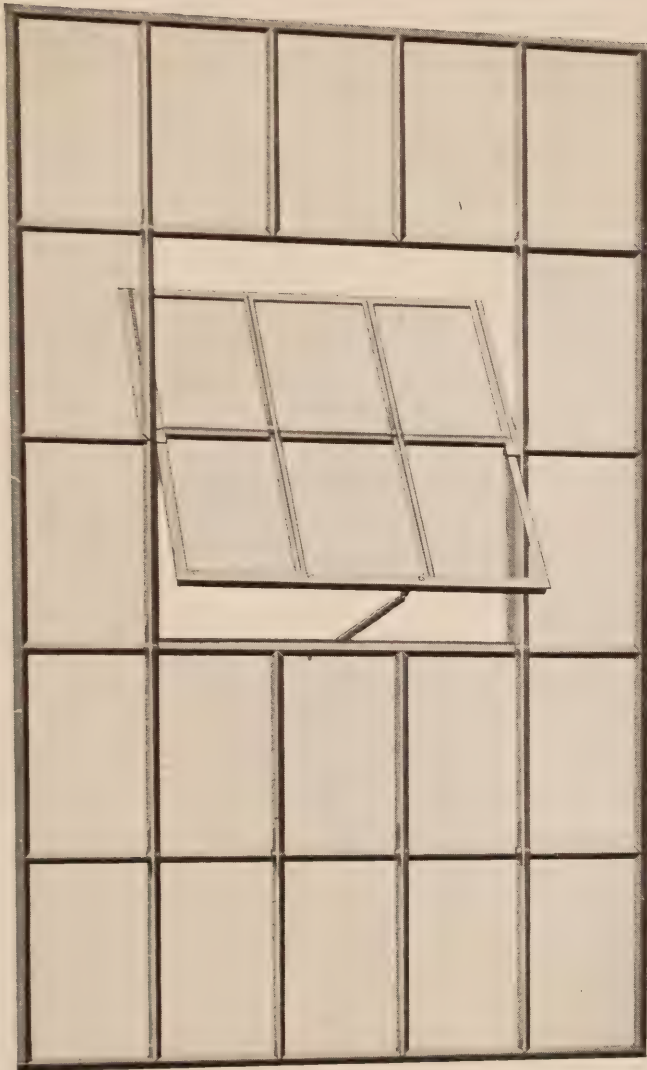
Over-all Dimensions of one or more Units

TYPE A-4			TYPE B-4		
Designed for 10" x 16" Glass			Designed for 12" x 18" Glass		
No. of Units	Width	Height	No. of Units	Width	Height
1	4' 4 ³ / ₄ "	8' 3 ¹ / ₈ "	1	5' 2 ³ / ₄ "	9' 3 ¹ / ₈ "
2	8' 9 ¹ / ₁₆ "	8' 3 ¹ / ₈ "	2	10' 5 ¹ / ₁₆ "	9' 3 ¹ / ₈ "
3	13' 2 ⁵ / ₈ "	8' 3 ¹ / ₈ "	3	15' 8 ⁵ / ₈ "	9' 3 ¹ / ₈ "
4	17' 7 ⁹ / ₁₆ "	8' 3 ¹ / ₈ "	4	20' 11 ⁹ / ₁₆ "	9' 3 ¹ / ₈ "

Unit of Standard Sash

TYPE A-5 (10" x 16" Glass)

TYPE B-5 (12" x 18" Glass)



Specifications: In 25 panes: 1 part of 6 panes to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Ventilation: 24% of total window area.

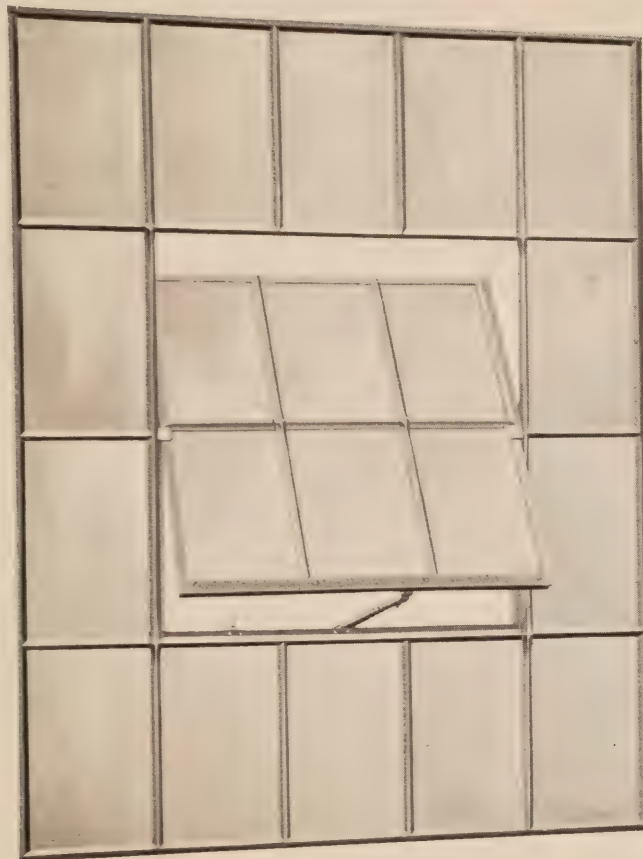
Over-all Dimensions of one or more Units

TYPE A-5			TYPE B-5		
Designed for 10" x 16" Glass			Designed for 12" x 18" Glass		
No. of Units	Width	Height	No. of Units	Width	Height
1	4' 4 ³ / ₄ "	6' 10 ³ / ₄ "	1	5' 2 ³ / ₄ "	7' 8 ³ / ₄ "
2	8' 9 ¹¹ / ₁₆ "	6' 10 ³ / ₄ "	2	10' 5 ¹¹ / ₁₆ "	7' 8 ³ / ₄ "
3	13' 2 ⁵ / ₈ "	6' 10 ³ / ₄ "	3	15' 8 ⁵ / ₈ "	7' 8 ³ / ₄ "
4	17' 7 ⁹ / ₁₆ "	6' 10 ³ / ₄ "	4	20' 11 ⁹ / ₁₆ "	7' 8 ³ / ₄ "

Unit of Standard Sash

TYPE A-6 (10" x 16" Glass)

TYPE B-6 (12" x 18" Glass)



Specifications: In 20 panes: 1 part of 6 panes to open on centers as shown. Complete with individual opening and locking device, steel glazing pins, fixing cleats and bolts.

Ventilation: 30% of total window area.

Over-all Dimensions of one or more Units

TYPE A-6

Designed for 10" x 16" Glass

No. of Units	Width	Height
1	4' 4 $\frac{3}{4}$ "	5' 6 $\frac{3}{8}$ "
2	8' 9 $\frac{11}{16}$ "	5' 6 $\frac{3}{8}$ "
3	13' 2 $\frac{5}{8}$ "	5' 6 $\frac{3}{8}$ "
4	17' 7 $\frac{9}{16}$ "	5' 6 $\frac{3}{8}$ "

TYPE B-6

Designed for 12" x 18" Glass

No. of Units	Width	Height
1	5' 2 $\frac{3}{4}$ "	6' 2 $\frac{3}{8}$ "
2	10' 5 $\frac{11}{16}$ "	6' 2 $\frac{3}{8}$ "
3	15' 8 $\frac{5}{8}$ "	6' 2 $\frac{3}{8}$ "
4	20' 11 $\frac{9}{16}$ "	6' 2 $\frac{3}{8}$ "

Instructions for Erection

Setting:

The sash leaves our factory complete with necessary lugs for fixing to brickwork and bolts for attaching same to sash, screws for assembling mullions (where any) and hook bolts for attaching the head to structural work, when structural work is used. In the case of ventilated sash the ventilators are kept in position by wooden wedges and twine, care must be taken that these wedges are not removed until the greater part of the sash is glazed.

The sash should be stood on the sill of the opening which it is to fill, in its correct position, with the lugs at sides, head and sill, when same are used, in position. It should then be plumbed for square and perpendicular. The sides of the sash then serve in a brick building as a guide for the bricklayer and all that is asked of him is that he shall fill the channel of the frame with pointing as his wall goes up.

It should then be understood that the sash will carry no weight on its head, and when the walls of a building continue above the sash, adequate structural work must be provided to support the brick work. This is best done by having two angles, two channels, or two I beams running across the top of the opening and kept sufficiently far apart to allow the head of the sash to just stand between them. See pages 17 and 25.

In all special cases and for concrete buildings, special instructions will be sent to meet the peculiarities of the case.

Instructions for Glazing

Glazing:

The sash leaves our factory painted one priming coat and with a supply of metal pins for holding the glass and re-enforcing the putty. Unlike other sash it is glazed in position, and, in all cases, from the inside or the building. Better results can be obtained by painting the sash another coat of the finishing color before glazing. It is also a good plan to have the putty tinted final color of the sash where finish is an important factor.

Putty:

With regard to putty, to obtain quick drying and for general satisfaction it is essential to use putty of the best quality, graded with litharge. Also work in some japan dryer just before using. Ordinary putty of light consistency must not be used.

Wedges:

In case of ventilated sash, the wooden wedges with which these are provided when they leave us, should not be removed until the glazing cannot be carried on any further without taking them out, as they tend to hold the ventilator square and give it the correct clearance all around.

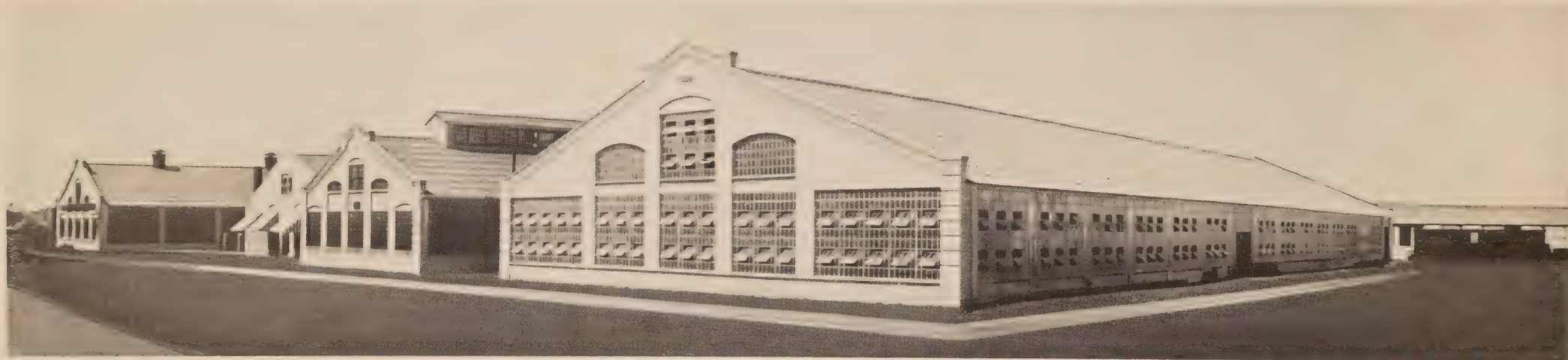
Bedding:

Glass must be back-puttied, that is to say, bedded in putty, and this back-puttying must be struck off flush on the outside so as to allow no ledge for the accumulation of water.

The sash bars in standards are drilled to take either $\frac{1}{8}$ " or $\frac{1}{4}$ " glass thickness.

Instructions for Ordering

1. Designate clearly by letter and number that standard required; in the case of near standards say whether ventilated or not, and give sketch showing amount of ventilation and location of ventilator.
2. State whether vents are to be used singly or in combination in the openings.
3. In the case of multiple unit openings state how mullions are to be prepared at head and sill.
4. State thickness of glass to be used.
5. State type of wall construction (i. e. brick, concrete, etc.)

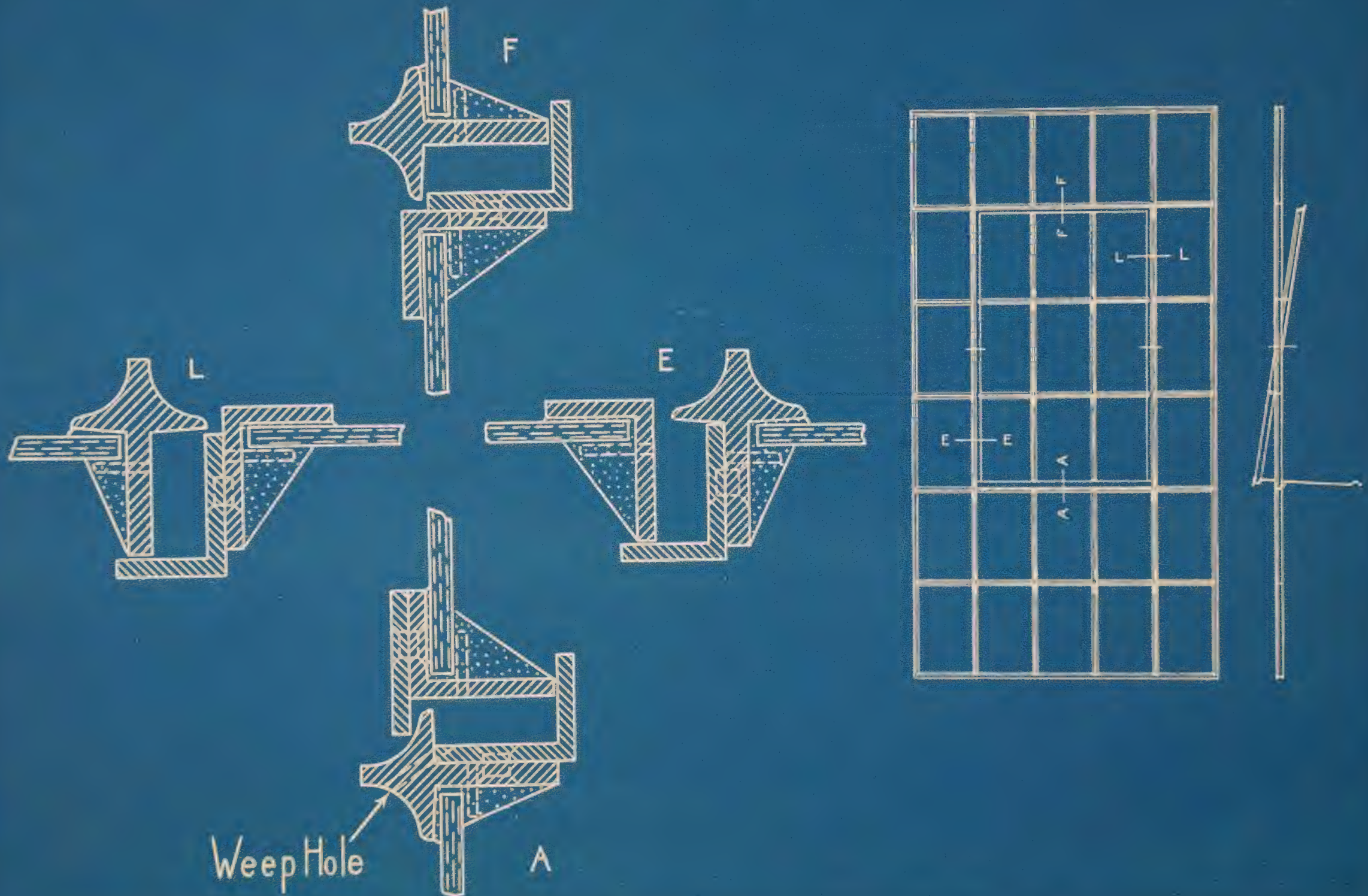


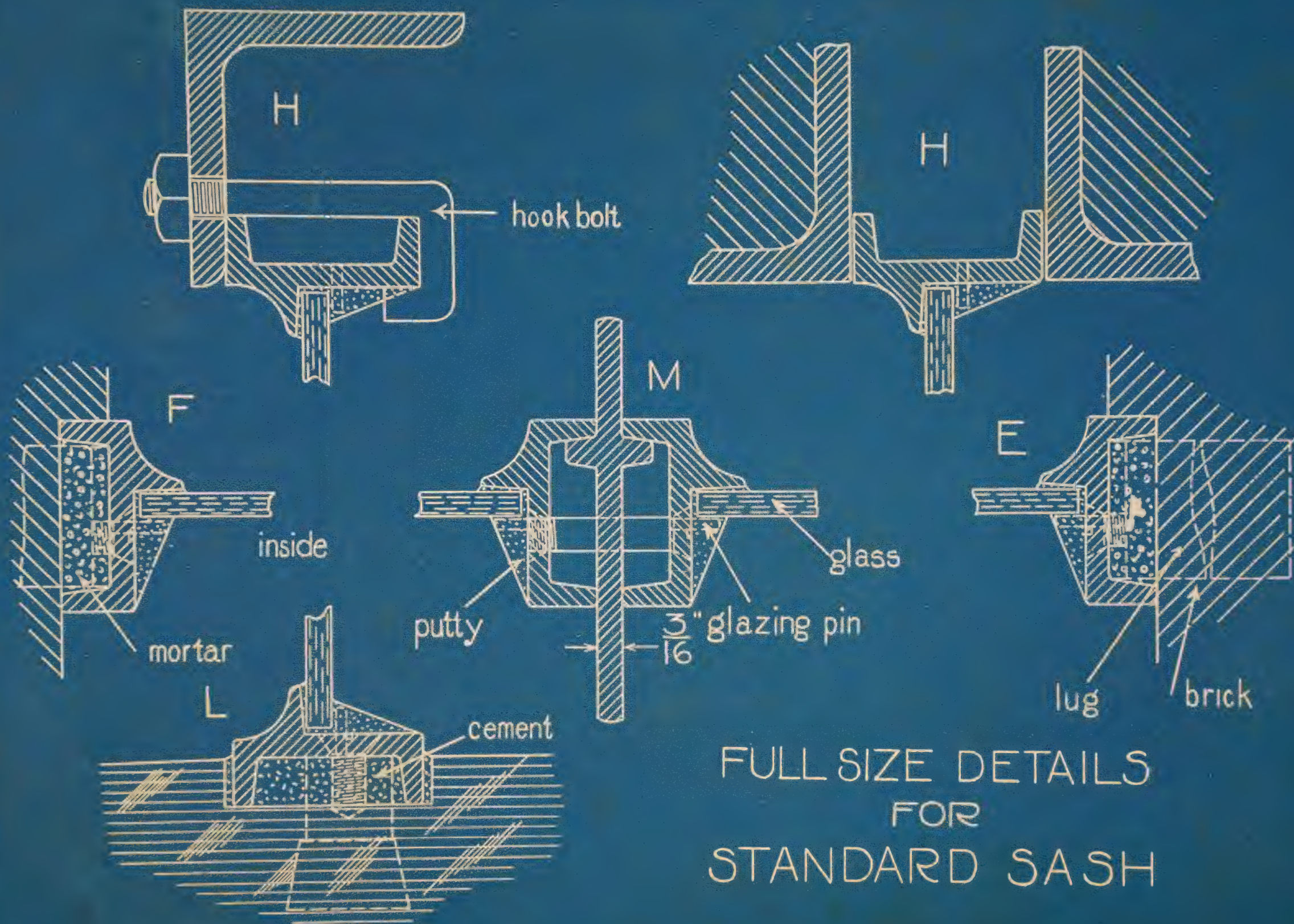
PLANT OF DETROIT STEEL PRODUCTS COMPANY
DETROIT, U. S. A.

“In Detroit—Life is Worth Living”

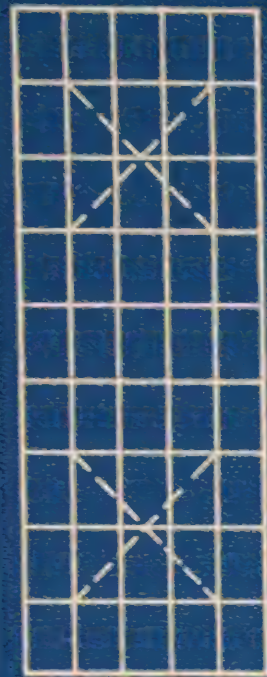
STANDARD VENTILATOR DETAILS

FULL SIZE

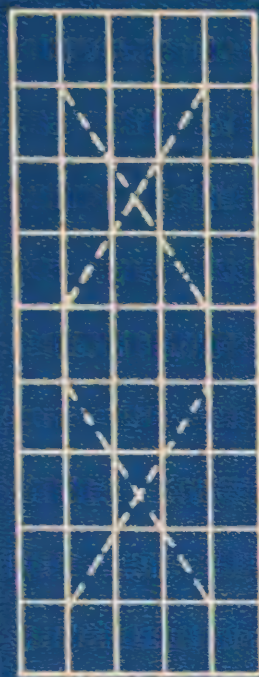




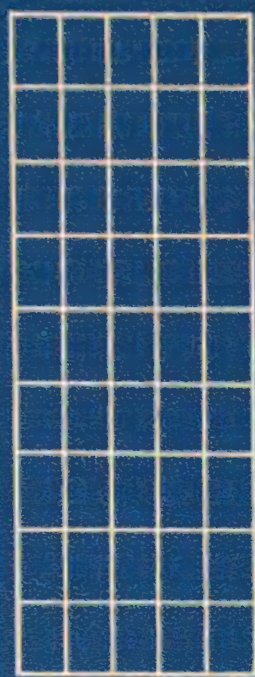
Arrangement, Sizes & Catalogue Numbers "Detroit Fenestra" Standards.



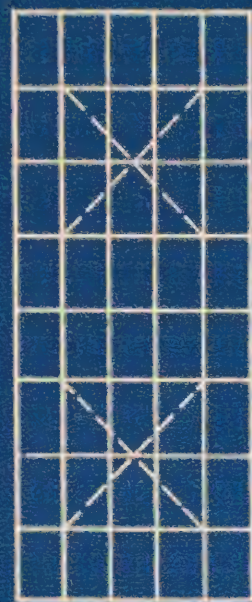
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B-1



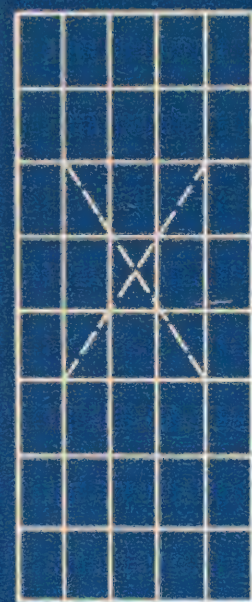
A-13
B-13



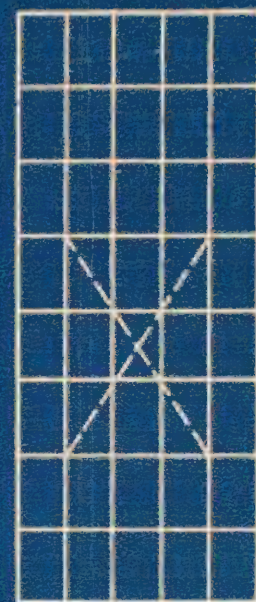
A-7
B-7



A-2
B-2



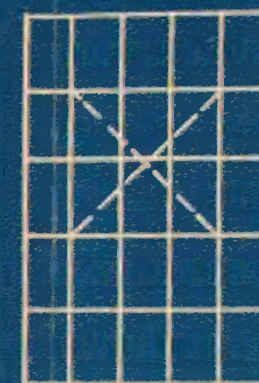
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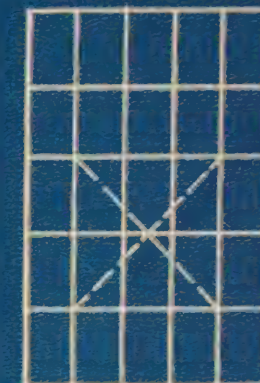
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B-15



A-8
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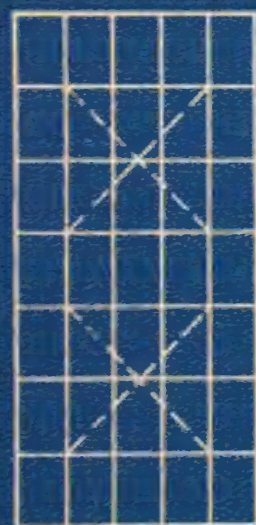
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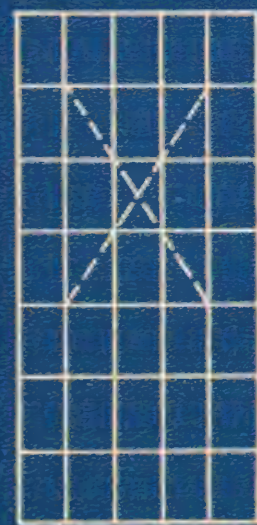
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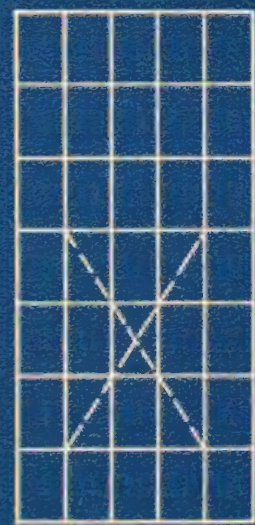
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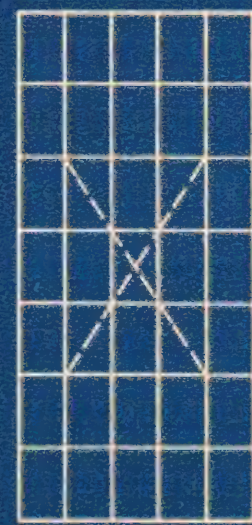
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B-3



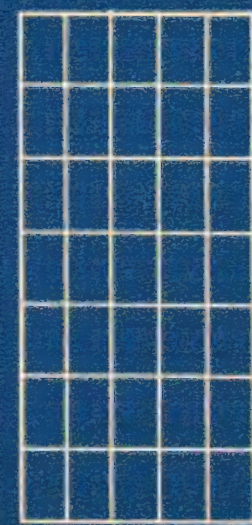
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B-16



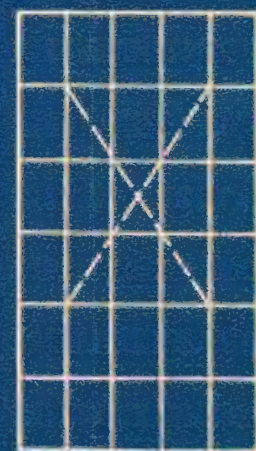
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B-17



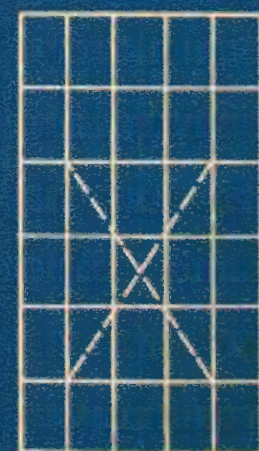
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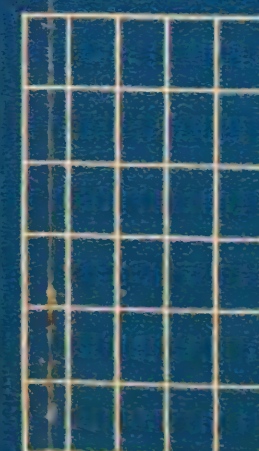
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B-9



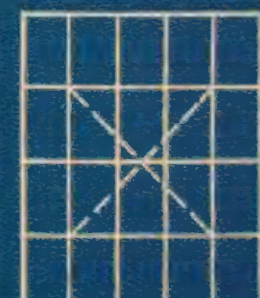
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B-4



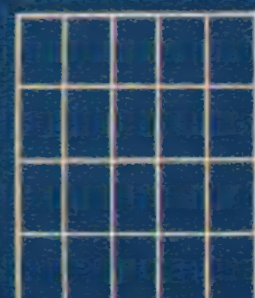
A-19
B-19



A-10
B-10



A-6
B-6



A-12
B-12

OVER-ALL WIDTH OF ONE OR MORE UNITS OF STANDARD SASH

NO. OF UNITS	TYPE "A"	TYPE "B"
1	4' 4 $\frac{3}{4}$ "	5' 2 $\frac{3}{4}$ "
2	8' 9 $\frac{1}{2}$ "	10' 5 $\frac{1}{2}$ "
3	13' 2 $\frac{5}{8}$ "	15' 8 $\frac{5}{8}$ "
4	17' 7 $\frac{1}{4}$ "	20' 11 $\frac{1}{4}$ "

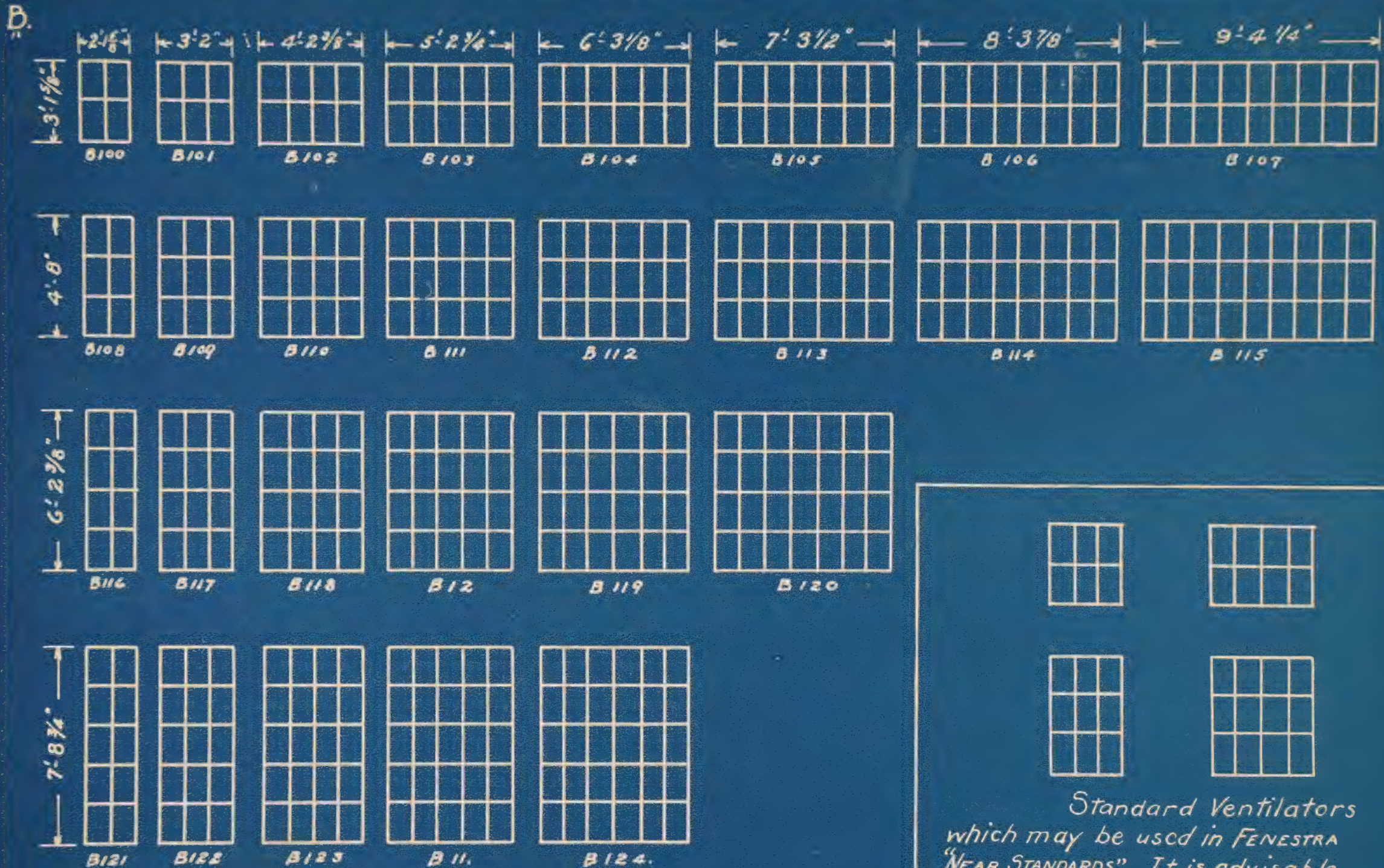


A-II
B-II

HEIGHT OVER-ALL OF ONE SASH UNIT

CAT. NO.	TYPE "A"	TYPE "B"
1	12' 4 $\frac{1}{4}$ "	13' 10 $\frac{1}{4}$ "
2	10' 11 $\frac{7}{8}$ "	12' 3 $\frac{7}{8}$ "
3	9' 7 $\frac{1}{2}$ "	10' 9 $\frac{1}{2}$ "
4	8' 3 $\frac{1}{8}$ "	9' 3 $\frac{1}{8}$ "
5	6' 10 $\frac{3}{4}$ "	7' 8 $\frac{3}{4}$ "
6	5' 6 $\frac{3}{8}$ "	6' 2 $\frac{3}{8}$ "
7	12' 4 $\frac{1}{4}$ "	13' 10 $\frac{1}{4}$ "
8	10' 11 $\frac{7}{8}$ "	12' 3 $\frac{7}{8}$ "
9	9' 7 $\frac{1}{2}$ "	10' 9 $\frac{1}{2}$ "
10	8' 3 $\frac{1}{8}$ "	9' 3 $\frac{1}{8}$ "
11	6' 10 $\frac{3}{4}$ "	7' 8 $\frac{3}{4}$ "
12	5' 6 $\frac{3}{8}$ "	6' 2 $\frac{3}{8}$ "
13	12' 4 $\frac{1}{4}$ "	13' 10 $\frac{1}{4}$ "
14	10' 11 $\frac{7}{8}$ "	12' 3 $\frac{7}{8}$ "
15	10' 11 $\frac{7}{8}$ "	12' 3 $\frac{7}{8}$ "
16	9' 7 $\frac{1}{2}$ "	10' 9 $\frac{1}{2}$ "
17	9' 7 $\frac{1}{2}$ "	10' 9 $\frac{1}{2}$ "
18	9' 7 $\frac{1}{2}$ "	10' 9 $\frac{1}{2}$ "
19	8' 3 $\frac{1}{8}$ "	9' 3 $\frac{1}{8}$ "
20	6' 10 $\frac{3}{4}$ "	7' 8 $\frac{3}{4}$ "
21	6' 10 $\frac{3}{4}$ "	7' 8 $\frac{3}{4}$ "

UNITS OF THE SAME HEIGHT ARE INTERCHANGEABLE

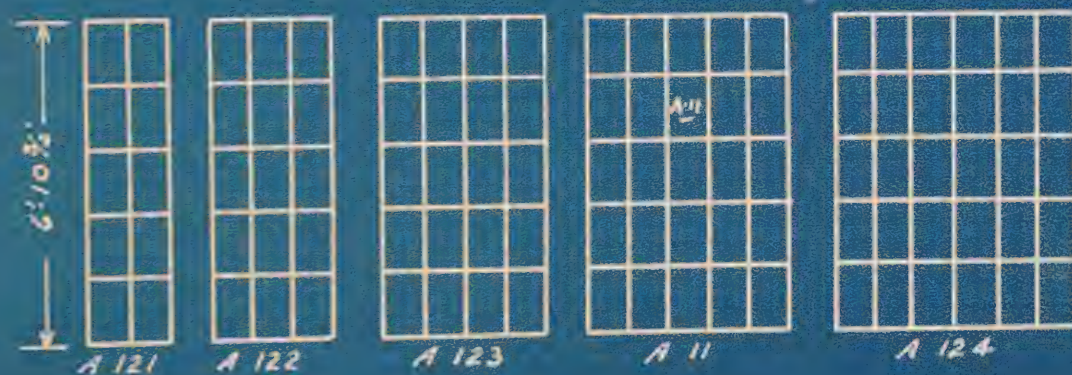
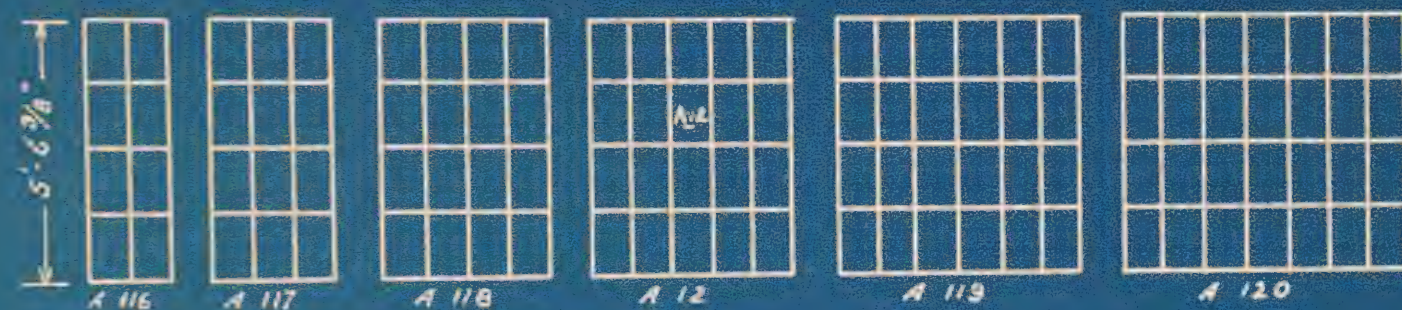
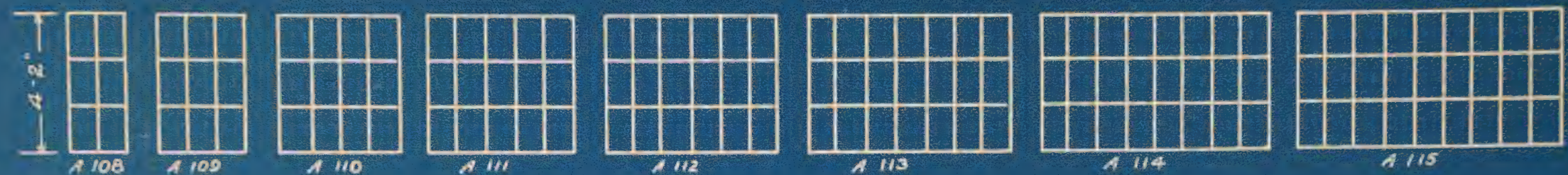
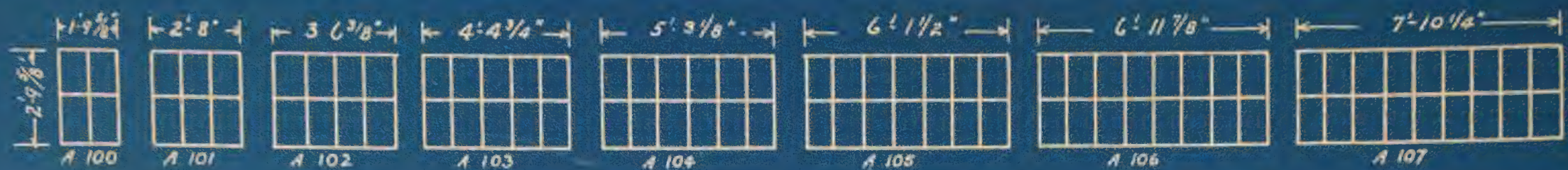


B
12 x 18 Glass.

FENESTRA NEAR STANDARDS

Standard Ventilators
which may be used in FENESTRA
"NEAR STANDARDS". It is advisable
to leave one pane of glass between
ventilators and edge of sash when
possible as in A and B standards

DETROIT STEEL PRODUCTS CO.



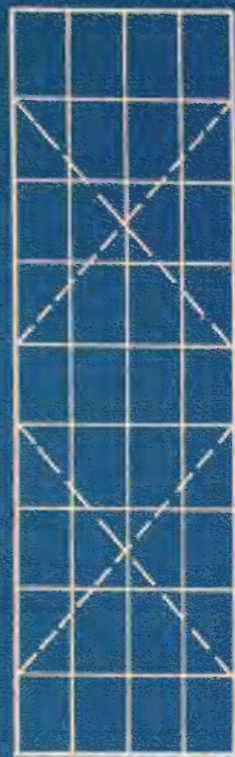
A
10 X 16 Glass

FENESTRA NEAR STANDARDS

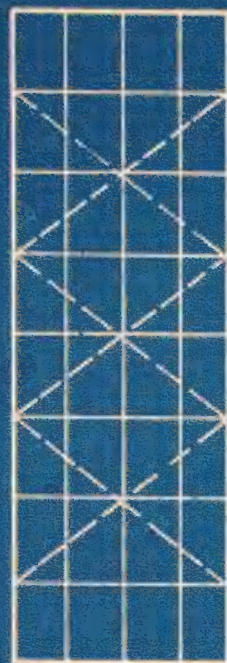
Standard Ventilators
which may be used in Fenestra
"NEAR STANDARDS" It is advisable
To leave one pane of glass between
ventilators and edge of sash when
possible as in A and B standards

DETROIT STEEL PRODUCTS CO.

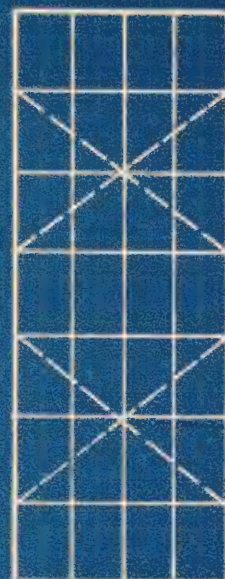
FENESTRA SPECIAL STANDARDS TYPE-C



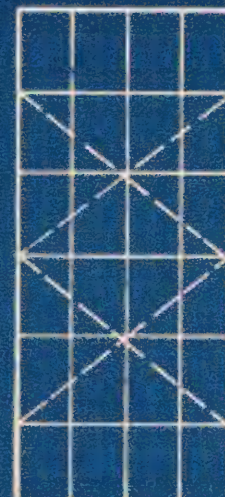
C-1



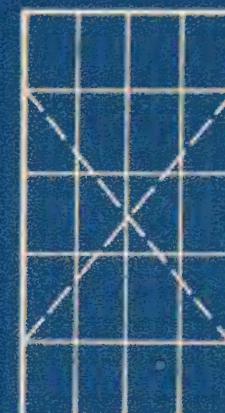
C-2



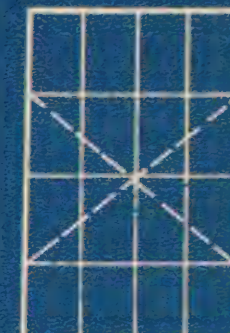
C-3



C-4



C-5



C-6

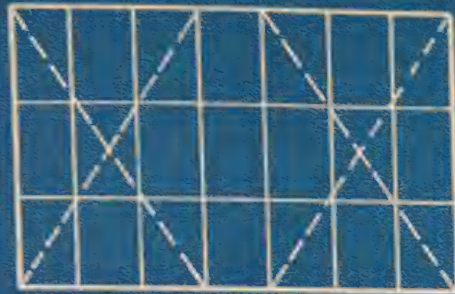
Over-all Dimensions for TYPE C STANDARDS

Designed for 12" x 18" Glass

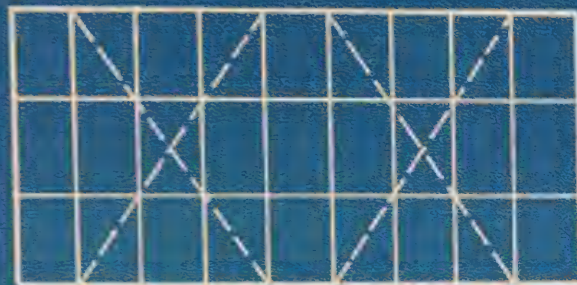
CAT. No.	WIDTH	HEIGHT
C-1	4' 2 3/8"	13' 10 1/4"
C-2	4' 2 3/8"	12' 3 7/8"
C-3	4' 2 3/8"	10' 9 1/2"
C-4	4' 2 3/8"	9' 3 1/8"
C-5	4' 2 3/8"	7' 8 3/4"
C-6	4' 2 3/8"	6' 2 3/8"

Type "C" Standards have been designed to meet a demand for a large percentage of ventilation in foundries, forge shops, etc. They are to be used in combination with the sashes of the "B" type. The idea is to fill the major portion of a wide opening with these sash and arrange either that the outside units are standards of the "B" type or that special non-ventilating fillers are made.

FENESTRA MONITOR STANDARDS



M-1



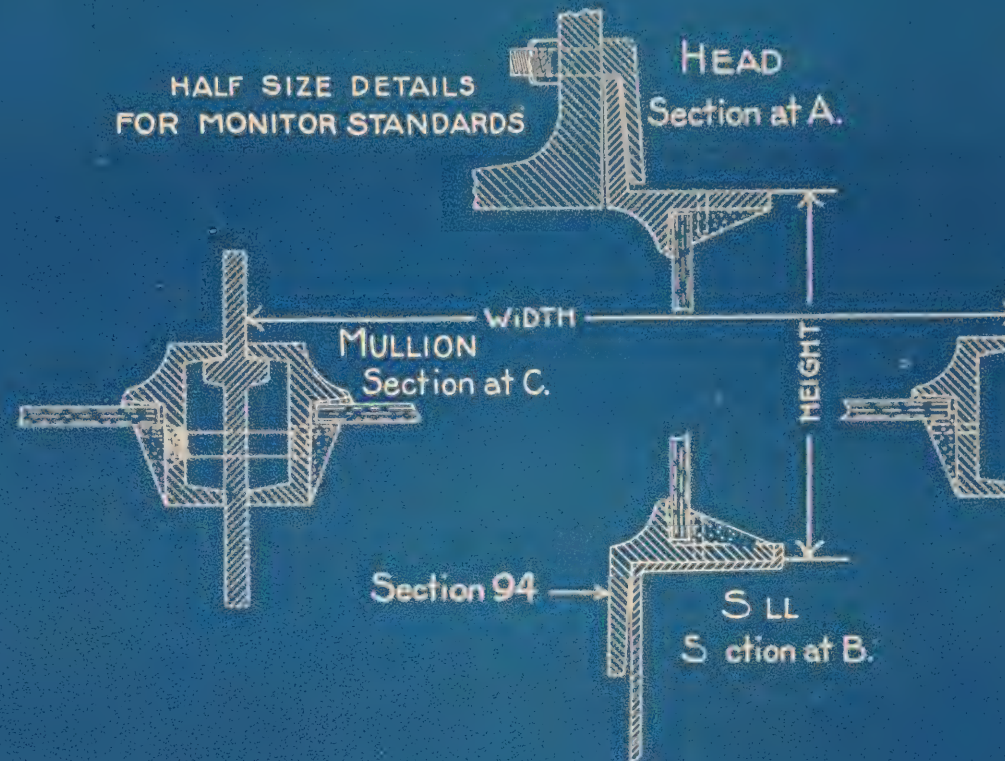
M-2

SIZE — See Cut

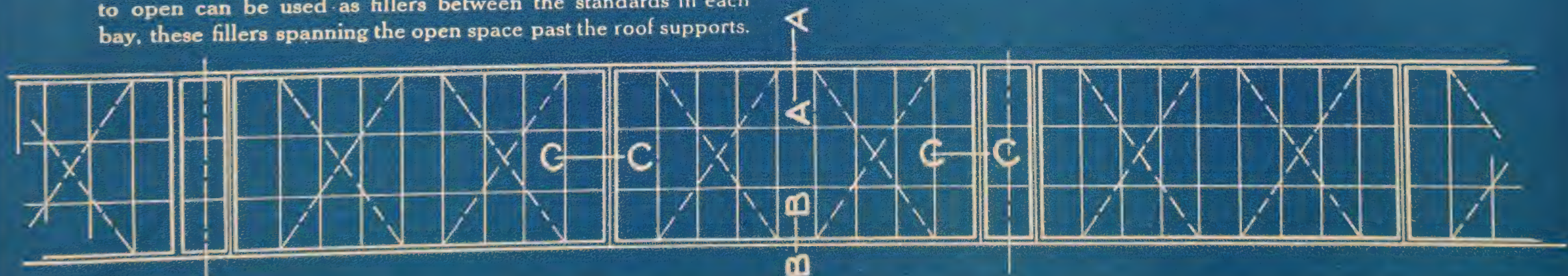
TYPE	WIDTH	HEIGHT
M-1	7' 3 1/2"	4' 7 1/4"
M-2	9' 4 1/4"	4' 7 1/4"

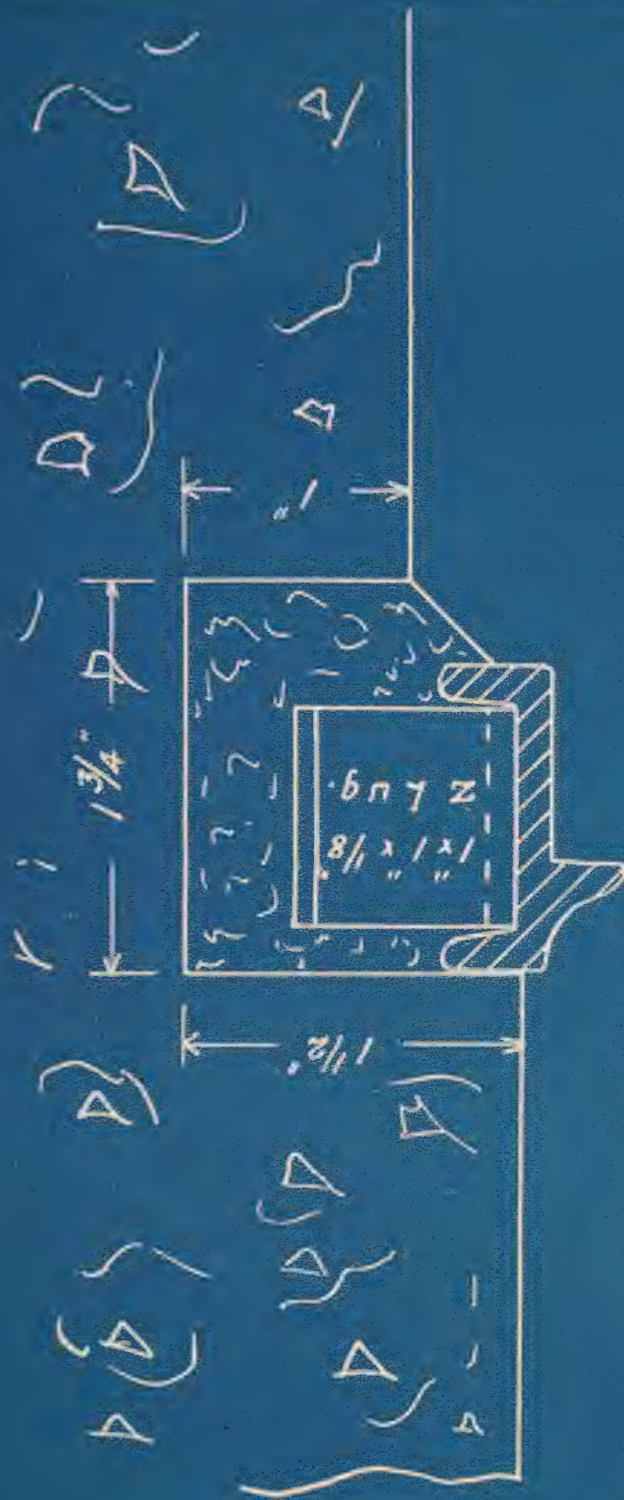
By using multiples of these units, or combining them, almost all the space between centers of roof trusses in ordinary factory construction can be filled. It is intended to apply the monitor sash wherever possible outside the upright members supporting the roof, rather than between them, so that sashes with no part to open can be used as fillers between the standards in each bay, these fillers spanning the open space past the roof supports.

HALF SIZE DETAILS
FOR MONITOR STANDARDS



A special section, No. 94, is used as a frame member at head and sill of these sashes, to allow of easy attachment to structural work above and to form an efficient housing for the flashing generally used in monitor construction.



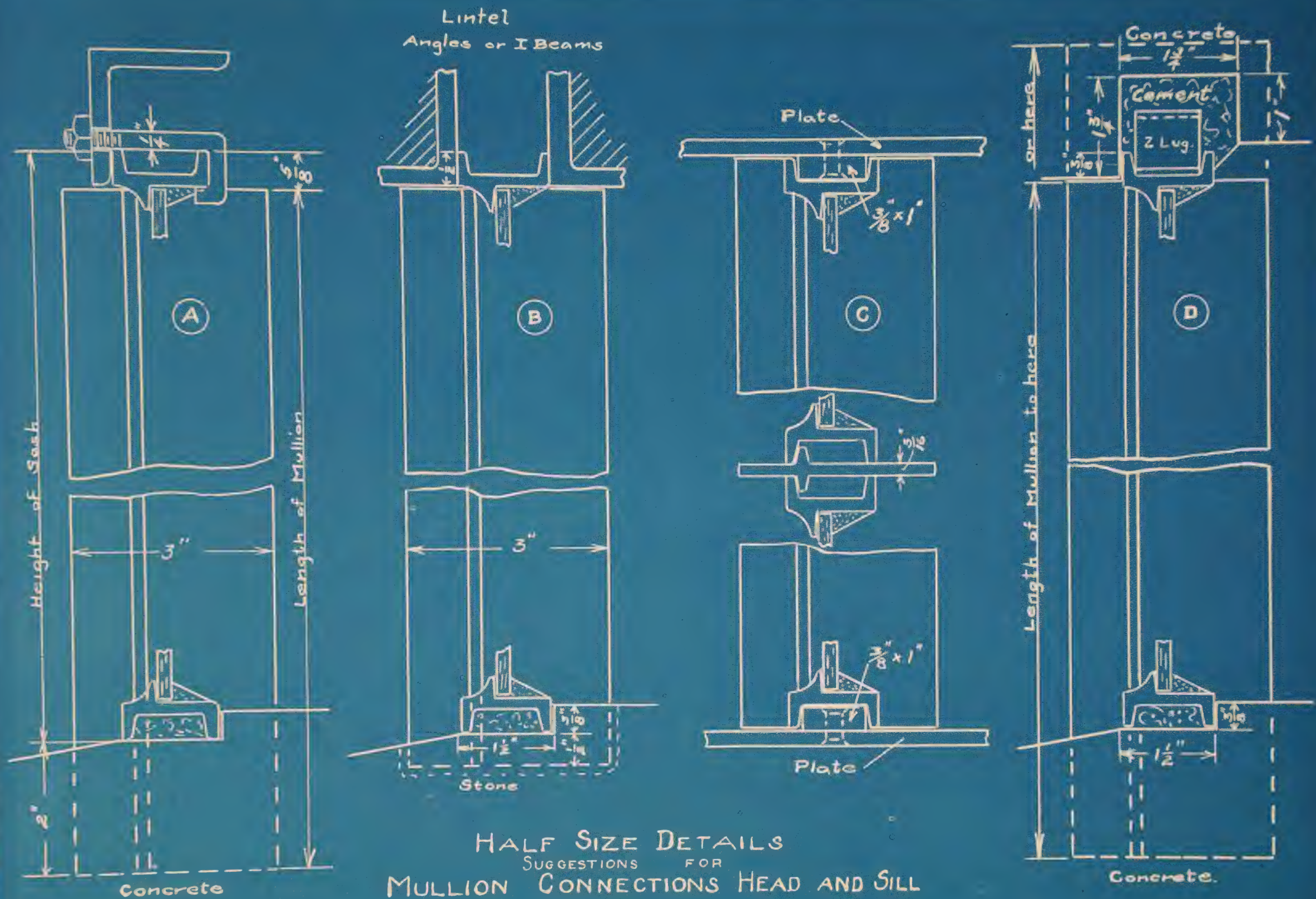


Section Jamb & Head.



Section Sill.

Standard Fastening for Concrete.



HALF SIZE DETAILS
SUGGESTIONS FOR
MULLION CONNECTIONS HEAD AND SILL
COMBINATIONS OR VARIATIONS MAY BE USED.



Interior and Exterior Views, New Building of Detroit Steel Products Company Plant
Fireproof throughout

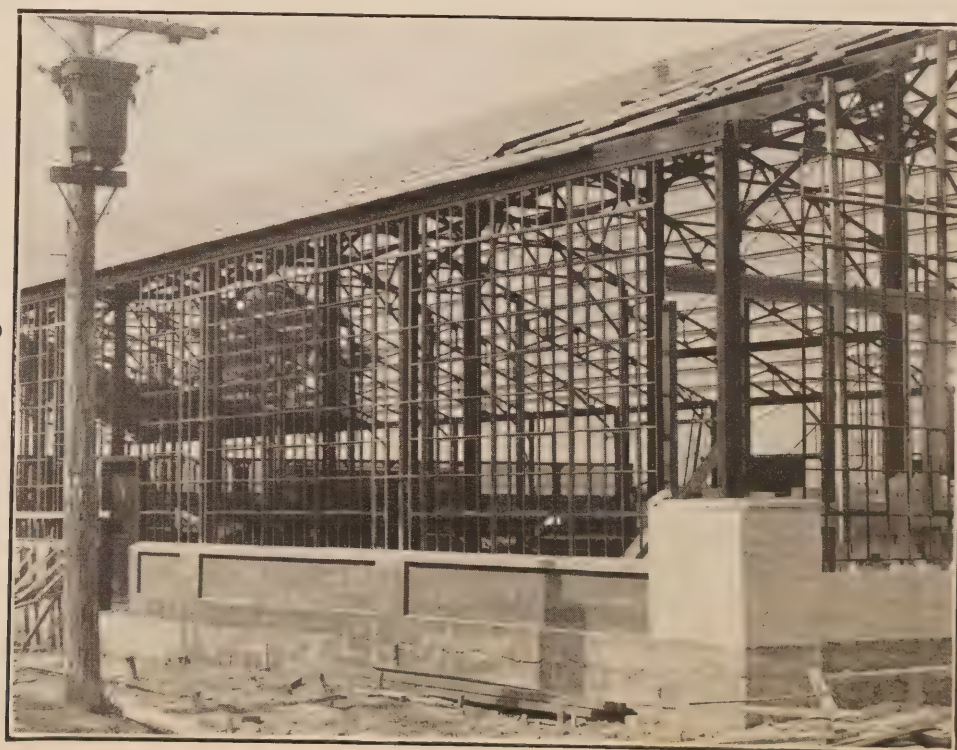
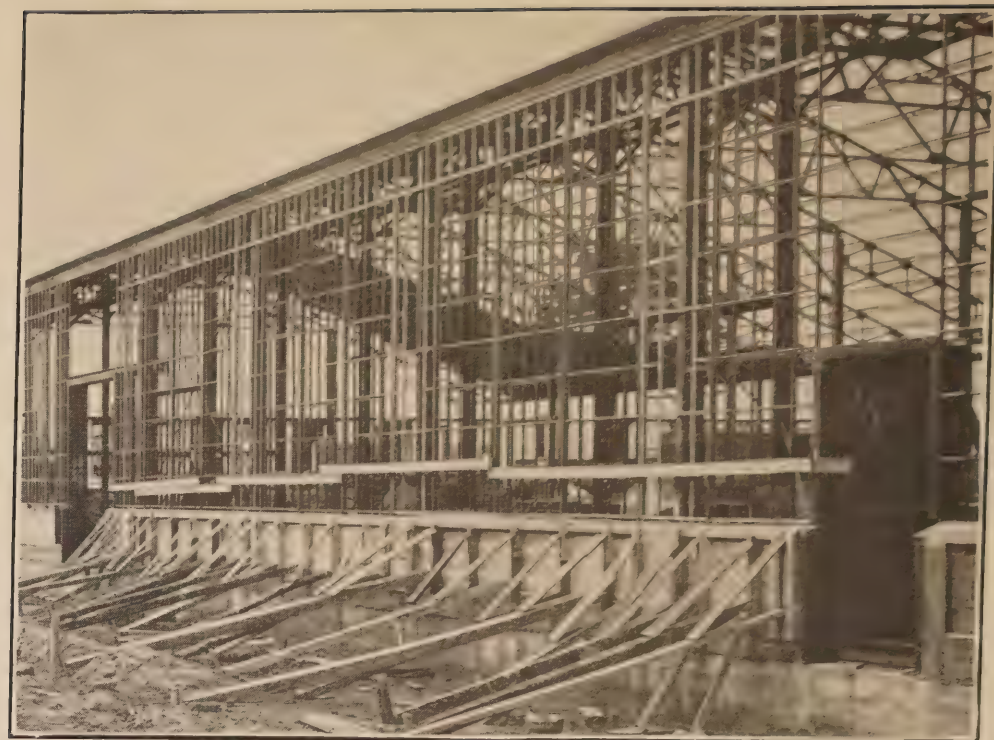
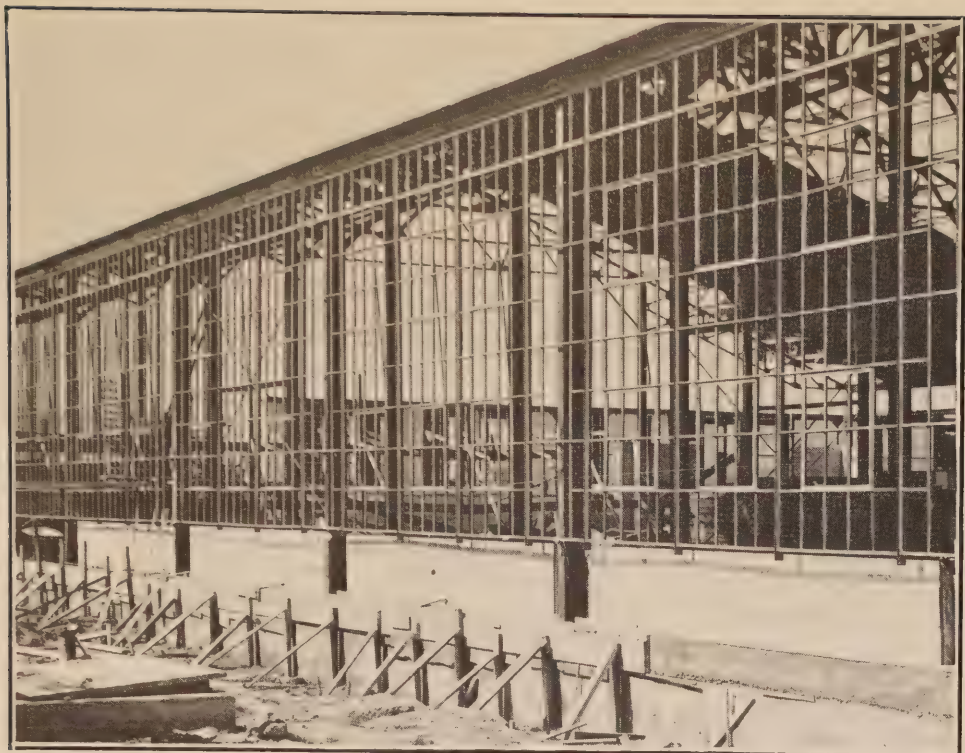


Factory building of The Screw Cutting Company of America
Philadelphia, Pa.

“Fenestra” adds materially to the appearance of any building into which it is installed. A modern up-to-date factory building is always a silent advertiser and this feature of **“Fenestra”** is now being generally recognized throughout the country.



American Sterilizer Company, Erie, Pa.



These cuts illustrate the simplicity with which "**Fenestra**" is erected, and the saving involved by their use, due to the elimination of pilasters

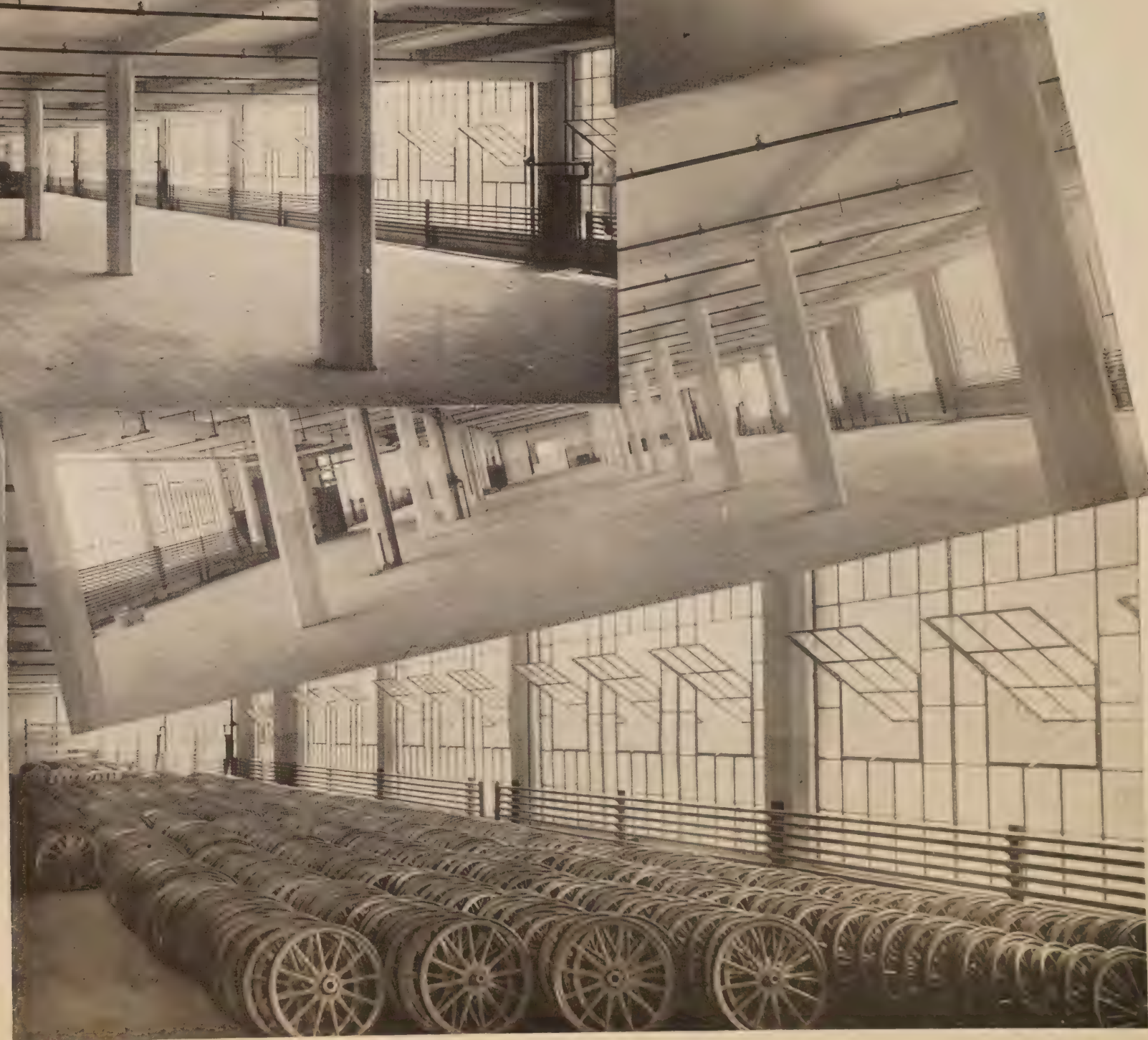


Exterior and Interior
United States Heater Company
Detroit, Mich.

Illustrating the use of a combination of fixed light and ventilated units; also a typical example of our saw tooth and monitor construction, in which every available foot of light area is utilized

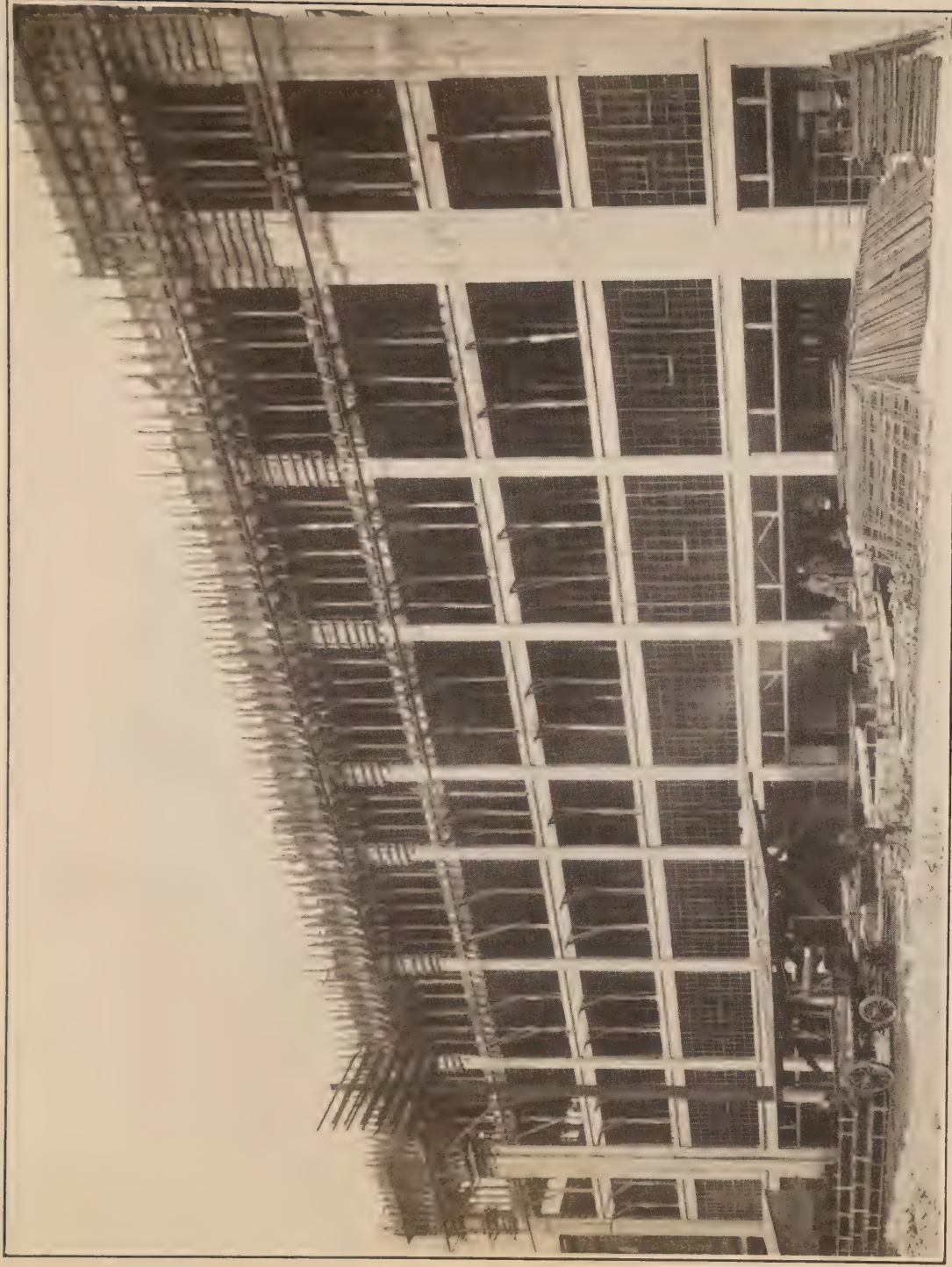


Various schemes for ventilation which have been successfully employed in factories equipped with "Fenestra."



Ford Motor Company Building, Detroit

Interior views which prove that "Fenestra" will deliver more light through a given opening than any other sash on the market.



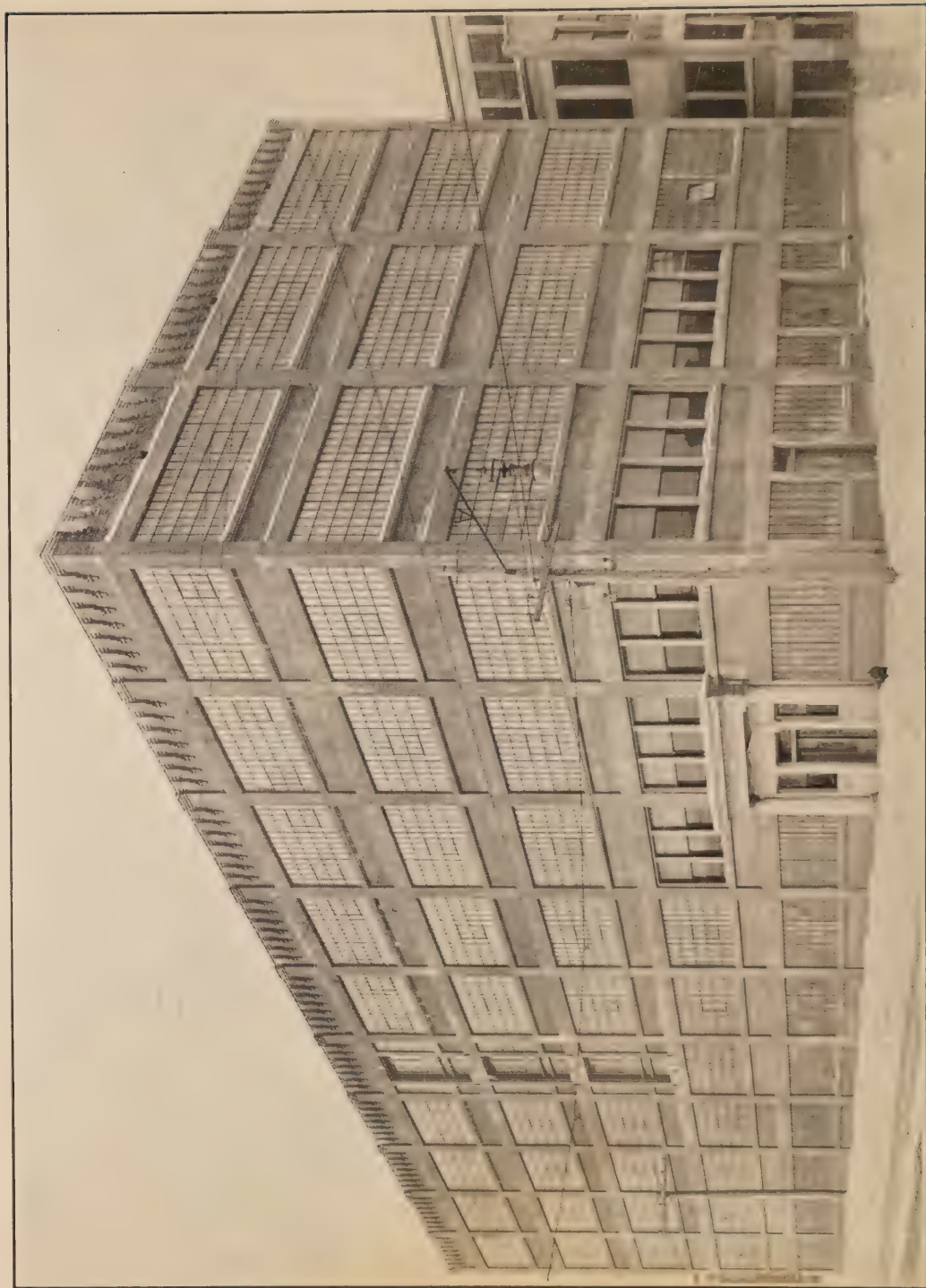
Beaver Power Building, Dayton, Ohio



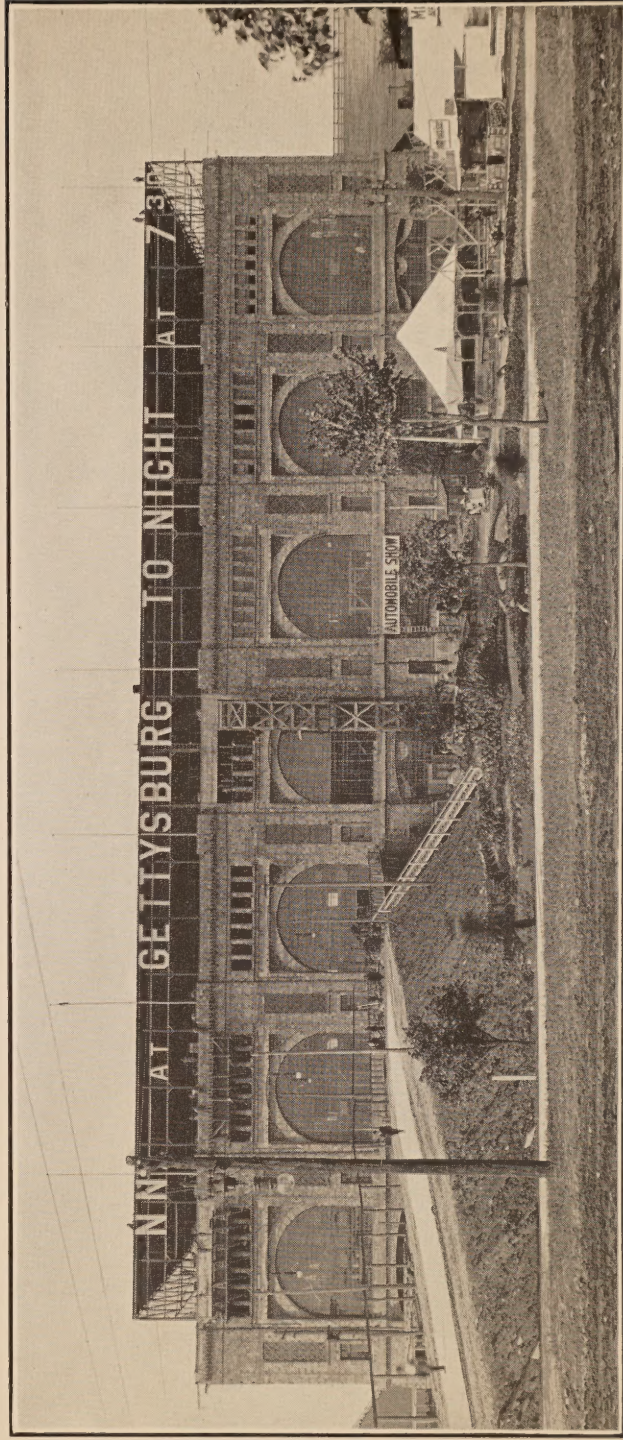
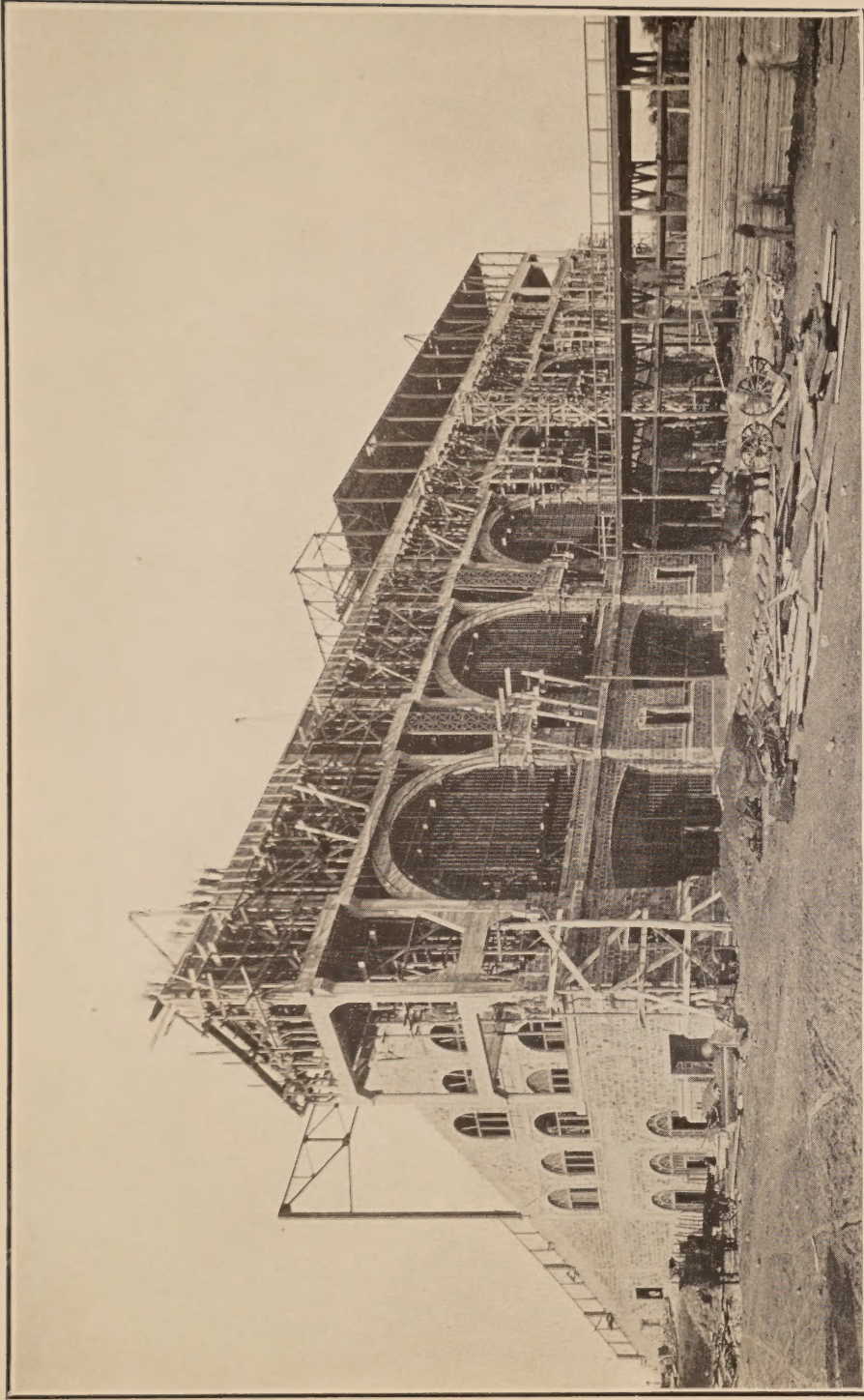
Extension to plant, Mitchell Motor Car Co., Racine, Wis.



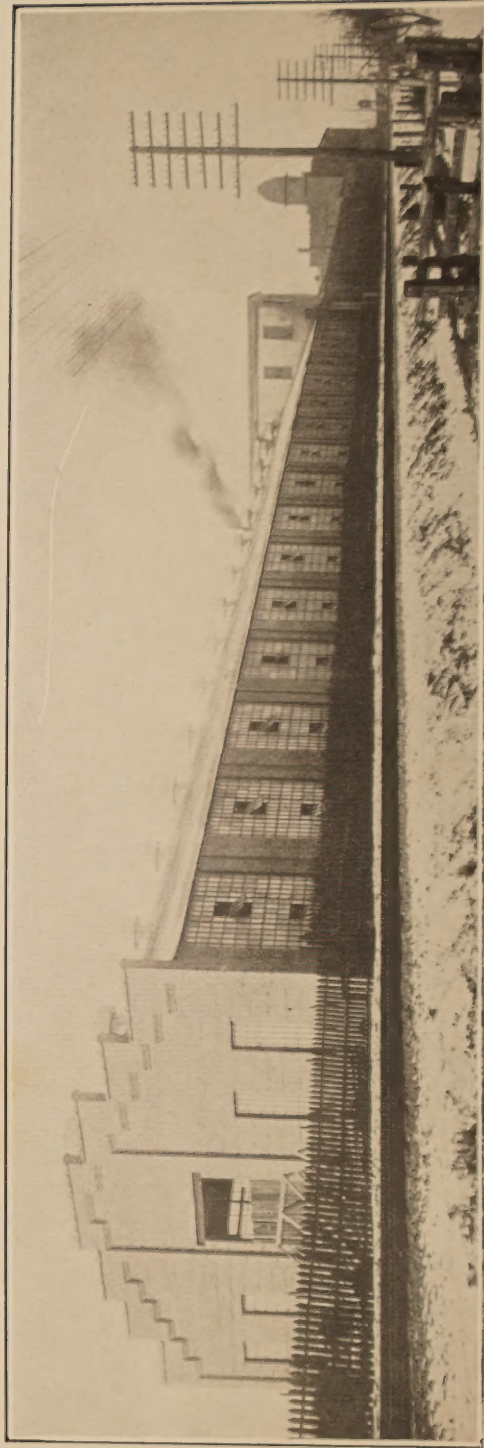
Carpenter Steel Co., Reading, Pa.



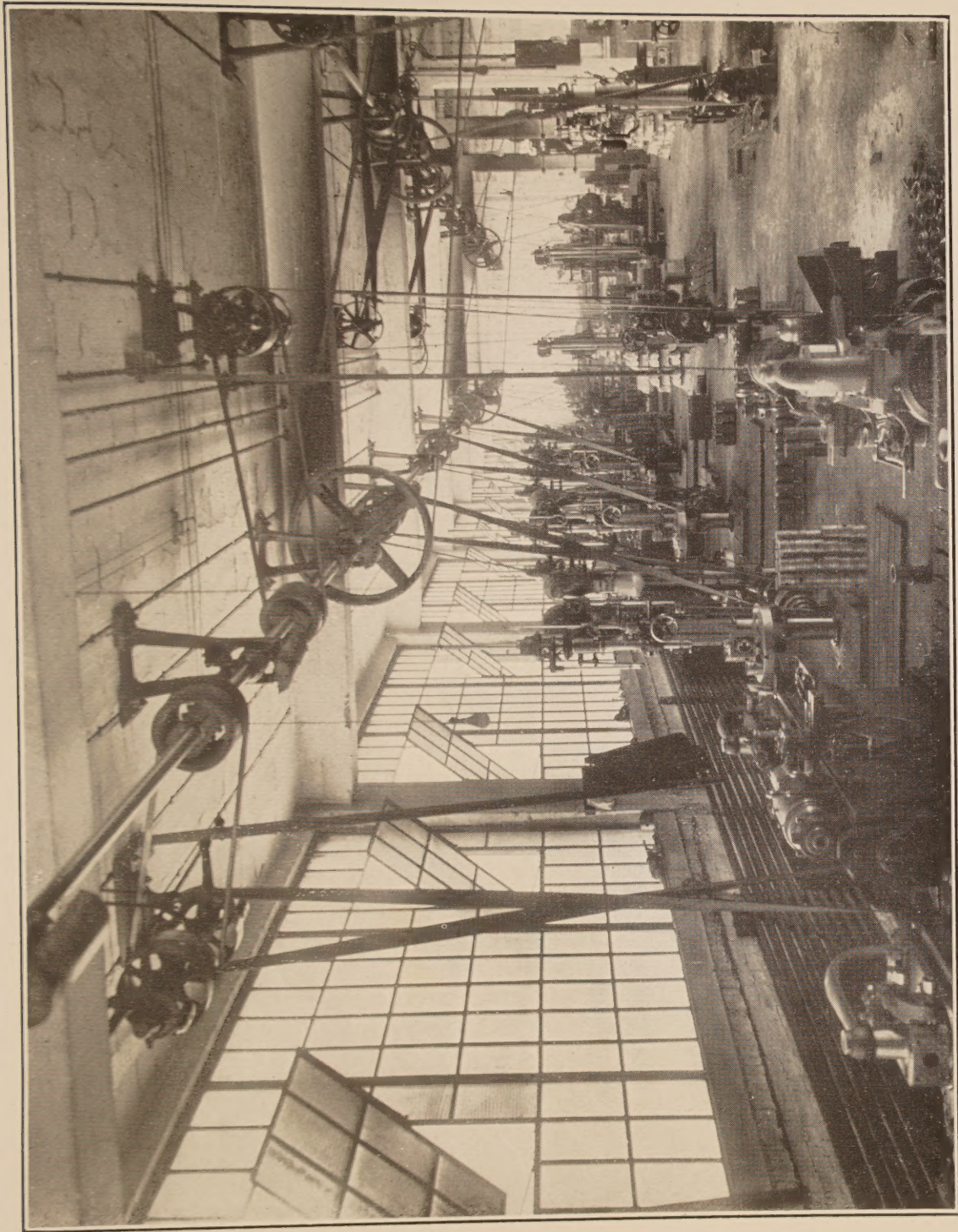
Davenport Wagon Works, Davenport, Iowa



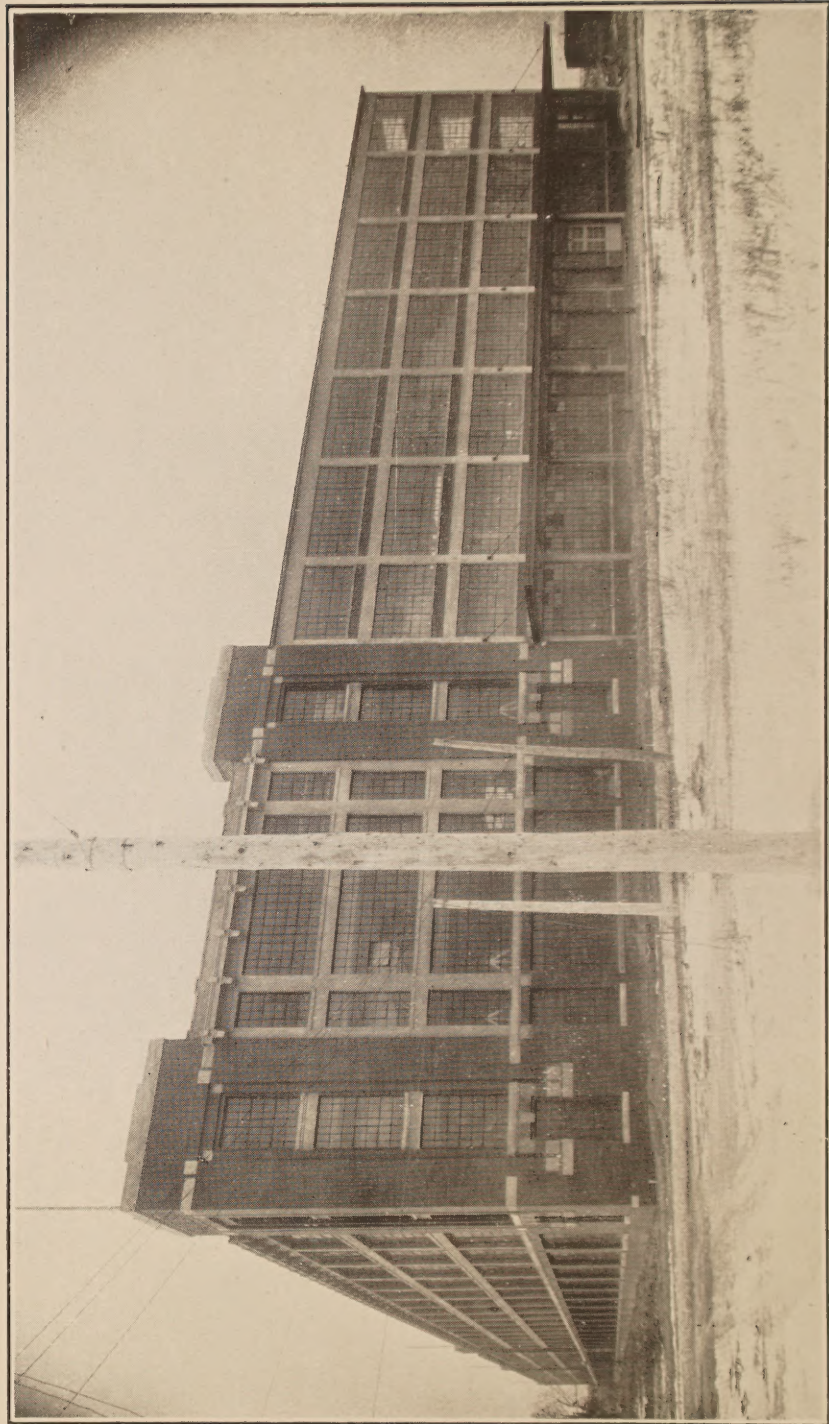
Buildings at Minnesota State Fair Grounds, St. Paul



Extension to foundry, Dodge Manufacturing Co., Mishawaka, Ind.



Interior Western Motor Co., Marion, Ind.



Ford Motor Co., Detroit, Mich.

WROUGHT STEEL DETROIT-FENESTRA SASH

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Mengel Box Co., Louisville, Ky.
Douglas & Co., Cedar Rapids, Ia.
John Hoberg Co., Green Bay, Wis.
J. R. Little Wheel Co., Quincy, Ill.
J. M. Kohler Sons Co., Sheboygan, Wis.
Detroit Edison Co., Detroit, Mich.
Hammond, Standish & Co., Detroit, Mich.
Corsicana Gas and Electric Co., Corsicana, Texas.
Fiat Automobile Co., Poughkeepsie, N. Y.
Hennegan & Co., Cincinnati, O.
Utah Mining Machinery & Supply Co., Salt Lake City, Utah.
Hupp Motor Co., Detroit, Mich.

Nairn Linoleum Co., Kearny, N. J.
American Sterilizer Co., Erie, Pa.
C. T. Patterson Bldg., New Orleans, La.
Grand Stand, Minnesota Fair Grounds, St. Paul, Minn.
Canton Baking Co., Canton, O.
Russel Wheel & Foundry Co., Detroit, Mich.
Michigan Crucible Steel Castings Co., Detroit, Mich.
U. S. Heater Co., Detroit, Mich.
Gemmer Mfg. Co., Detroit.
Manistee Iron Works, Manistee, Mich.
Western Motor Co., Marion, Ind.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
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